

THE DIFFERENTIAL IMPACT OF DEATH ON FAMILY STRESS LEVELS
AS DETERMINED BY STAGE OF THE FAMILY LIFE CYCLE

By

ELIZABETH ANNE HARVEY

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This dissertation is lovingly dedicated
to members of my family:

To Sharon,
beautiful sister,
still missed

To Mom,
who gave me life
and so much more--
love for music and word games
and learning

To Rothi,
who was like a sister to me
and such a wonderful role model

To Rock and Todd,
dear nephews,
whose lives were cut tragically short

To Grandpa,
who gave us permission to eat dessert first

and to my dad and brothers,
whose losses far exceed my own

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Elizabeth Anne Harvey

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KEY TO ABBREVIATIONS

CF	Centrifugal--outward focus and orientation
CP	Centripetal--inward focus and orientation
FACES-II	Family Adaptability and Cohesion Evaluation Scales
FES	Family Environment Scale
FILE	Family Inventory of Life Events and Changes
FIRA-G	Family Index of Regenerativity and Adaptation--General

Abstract of Dissertation Presented to the Graduate School
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By
Elizabeth Anne Harvey

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Major Department: Counselor Education

The purpose of this study was to determine if there are points in the family life cycle when the death of a member creates more stress than usual. The stages of the family life cycle covering three generations were differentiated into four quadrants depicting interrelated developmental phases within the Family Life Spiral Model: centripetal (CP), including birth, childbearing, and grandparenthood; centripetal→centrifugal (CP→CF), including middle years of childhood, settling down, and planning for retirement; centrifugal (CF), encompassing adolescence, 40s reevaluation, and retirement; and centrifugal→centripetal (CF→CP), incorporating marriage/courtship, middle adulthood, and late adulthood. Eighty-four Hospice families were assessed 1 year after the death of their loved one to determine the stress they had experienced in the past year. Levels of cohesion, adaptability, expressive communication, and social support were also measured.

There were no differences between quadrants on stress levels, communication, and social support. Differences were found between quadrants ($p < .05$) on levels of cohesion and adaptability, with CP families the highest and CF families the lowest. Analyses by

stage of the family life cycle determined that the settling down stage evidenced significantly greater stress.

Cohesion was a significant predictor of stress with low cohesion accompanied by high stress. An indirect relationship between quadrants and stress was found when cohesion was controlled. There were differences between family subtypes with Very Connected-Very Flexible families having the least stress. As levels of cohesion and adaptability decreased, stress increased. Differences by quadrant were found for discrepancy scores on cohesion and adaptability, with CF families more discrepant than CP families. A positive relationship was found between cohesion discrepancy scores and stress discrepancy scores. As communication discrepancy increased for CP→CF families, so did their stress; the reverse was true for CF families--as communication discrepancy increased, stress levels decreased. Social support and adaptability were not found to be predictors of stress. Increased adaptability predicted increased communication.

Although stress measures by quadrant were not significant, there were differences on other measures that tended to confirm the theory behind the Family Life Spiral Model. Differences by stage of the life cycle were found, and further studies are in order.

CHAPTER 1 INTRODUCTION

The father came back from the funeral rites.

His boy of seven stood at the window, with eyes wide open and a golden amulet hanging from his neck, full of thoughts too difficult for his age.

His father took him in his arms and the boy asked him, "Where is mother?"

"In heaven," answered his father, pointing to the sky.

The boy raised his eyes to the sky and long gazed in silence. His bewildered mind sent abroad into the night the question, "Where is heaven?"

No answer came: and the stars seemed like the burning tears of that ignorant darkness.

--Tagore, from The Fugitive

"The fear of death is our deepest terror and the loss of a loved one our most profound sorrow" (Walsh & McGoldrick, 1991, p. xix). Of all life experiences, death presents the most painful adaptational challenges for every surviving member (Holmes & Rahe, 1967) and for the family as a system, with "reverberations for all other relationships" (Walsh & McGoldrick, 1991, p. xv). Many families, of course, have the necessary adaptational skills to weave the loss of a family member into the tapestry of their lives and have no need of intervention from mental health professionals. Others, however, do not adapt as well to the stress of loss for a variety of reasons; often their loss exacerbates the multitude of problems they already face. This study addresses the impact of death on families in terms of their levels of stress depending upon where they are in the family life cycle.

Scope of the Problem

A body of literature exists promoting theoretical premises about the impact of death on individuals (Freud, 1917; Lindemann, 1944; Osterweis, Solomon, & Green, 1984; Rando, 1988; Schumacher, 1984; Volkan, 1970; Wortman & Silver, 1989). Extensive research has been undertaken to test those individually oriented theoretical premises (Bowlby, 1961, 1980; Eisenstadt, 1978; Elizur & Kaffman, 1983; Fleming & Adolph, 1986; Kranzler, Shaffer, Wasserman, & Davies, 1990; Parkes, 1964, 1970a, 1970b, 1975; Parkes & Weiss, 1983; Volkan, 1974).

Some individual theorists began to see the individual's reaction to death within the context of their family and acknowledged the importance of assessing both individual and family (Rando, 1984; Sanders, 1989). Given the lack of systemic assessment devices, however, families were initially assessed by measuring the individual family members' reactions to the death (Bass, Noelker, Townsend, & Deimling, 1990; Helmrath & Steinitz, 1978; Huygen, van den Hoogen, van Eijk, & Smits, 1989; Lewis, Beavers, Gossett, & Phillips, 1976; Schwab, 1990; Tietz, McSherry, & Britt, 1977; Wahl, 1970).

Although numerous family theorists and therapists have postulated hypotheses based on clinical observations of families (Aleksandrowicz, 1978; Arnold & Gemma, 1983; Bolton, 1984; Bowen, 1976; Brown, 1988; Coleman, 1980; Coleman & Stanton, 1978; Crosby & Jose, 1983; Gelcer, 1983; Goldberg, 1973; Haley, 1973, 1980; Hare-Mustin, 1979; Herz, 1980; Howe & Robinson, 1975; Imber-Black, Roberts, & Whiting, 1988; Lamberti & Detmer, 1993; McGoldrick & Walsh, 1983; Moody & Moody, 1991; Paul, 1967; Paul & Grosser, 1965; Raphael, 1983; Reilly, 1978; Rolland, 1988a; Rosen, 1988-1989, 1989, 1990a, 1990b; Simos, 1986; Solomon & Hersch, 1979; Stanton, 1978, 1980; Vollman, Ganzert, Picher, & Williams, 1971; Walsh & McGoldrick, 1987, 1991), very little research has been carried out on the impact of death on the family as a unit (Bass & Bowman, 1990; Cohen, Dizenhuz, & Winget, 1977; Coleman, Kaplan,

& Downing, 1986; DeFraim, 1991; Hadley, Jacob, Miliones, Caplan, & Spitz, 1974; Jordan, 1991-1992; Ponzetti, 1992; Reiss, Gonzalez, & Kramer, 1986; Shanfield, Benjamin, & Swain, 1984; Sprang, McNeil, & Wright, 1992-93; Vess, Moreland, & Schwebel, 1985-1986; Walsh, 1978; Weber & Fournier, 1985).

The summary results of the above research efforts studying the impact of death on families indicate that a family's inability to mourn its losses is often at the heart of clinical complaints, even when death is not the presenting problem (Walsh & McGoldrick, 1991). "Symptoms reflect a family's difficulty in adapting to loss and moving on, whether the problem is addiction, disturbed behavior of a child or adolescent, anxiety, phobias or compulsions, marital conflicts, depression, or the inability of family members to leave home or commit themselves in relationships" (Walsh & McGoldrick, 1991, p. 51).

As family assessment tools have become more widely formulated and tested, their ability to be used as valid research instruments has increased to the point that the interactions and interrelationships of family members can now be assessed with reasonable objectivity. This allows a more accurate depiction of the family as a dynamic system, enabling the therapist to work more effectively with the family as a unit.

Theoretical Framework

At the heart of family systems assessment is the identification of the developmental stage of the family in the family life cycle, originally seen as a linear model. The family life cycle is composed of stages from birth through adolescence, launching and coupling, childbearing and rearing, middle age and "empty nest," to retirement and old age (Carter & McGoldrick, 1988; Duvall & Miller, 1985).

The developmental tasks that are normative for families at various stages of the life cycle offer the context for ongoing assessment and diagnosis of family problems.

• Symptoms and stressors, both present and past, are viewed in light of the family's developmental stage (Carter & McGoldrick, 1988; McCubbin & Thompson, 1991; Olson,

1988; Olson, McCubbin, Barnes, Larsen, Muxen, & Wilson, 1983). Each stage of the family life cycle has tasks and stressors that are specific to that stage and normative at that point in time. Stressors that occur off-time, that is, at an unexpected point in the life cycle, or a pile-up of stressors within a short period of time have been postulated to tax families' adaptive capabilities severely (McCubbin & Thompson, 1991).

McCubbin and Patterson (1983) have extended Hill's ABCX family crisis model (1958) to include this pileup of life events experienced by the family and have developed an instrument, the Family Inventory of Life Events and Changes (FILE), to document quantitatively life events and changes in the family system as well as for individual members (McCubbin & Thompson, 1991). This instrument can be useful in predicting the family's vulnerability as a result of the pileup of stressors. A family's ability to adapt to a crisis and achieve a new level of balance depends on the reciprocity of the family's functioning. When the demands of the family unit are not satisfactorily met by the family's capabilities, negative consequences will present through evidence of deterioration or breakdown in the family unit, relationships within the family unit, and/or the psychological and physical health of family members (McCubbin & Thompson, 1991).

† Clinicians and researchers alike have theorized and documented that certain stages of the family life cycle are associated with higher levels of stress than others under normative conditions (Carter & McGoldrick, 1988; Olson et al., 1983). For example, families with young preschool children and school-age children experience a higher degree of stress than "empty nest" families, but the most stressful stages of the family life cycle appear to be adolescence and the launching stages (Olson et al., 1983).

Combrinck-Graham (1983, 1985) has taken the linear family life cycle model and transformed it into a continuous spiral to show the impact of the interlocking of the generations on developmental tasks. This spiral represents three generations of family evolution with families oscillating between periods when they are centripetal (CP) or

centrifugal (CF) depending on the focal tasks required of them at those stages of the family life cycle. Figure 1 illustrates the configuration of Combrinck-Graham's Family Life Spiral Model.

Typically, an individual will experience three oscillations in a lifetime, spanning six developmental stages of the family life cycle: one's own childhood (CP) and adolescence (CF), the birth (CP) and adolescence (CF) of one's children, and the birth (CP) and development (CF) of one's grandchildren. Each oscillation is approximately 25 years in length, producing a new generation with each full oscillation. These oscillations appear to provide opportunities within the family context for family members to work and rework issues of intimacy in the CP stages and self-actualization in the CF stages.

The CP stages are those with an inner orientation requiring intense bonding and cohesion (early childhood, child rearing, grandparenting). During CP periods the individual and the family's life structure emphasize the internal dynamics of family life. External boundaries are tightened while internal boundaries may be more diffuse to enhance communication and teamwork. The CF stages are those with an outer orientation addressing the challenges and opportunities in the environment. Developmental tasks that emphasize personal identity and autonomy (adolescence, midlife, retirement) are emphasized. The external family boundary is loosened, and distance among family members increases as they attend to extrafamilial concerns.

Neither CP nor CF defines a pathological condition but only describes the relationship focus and style of the family at particular stages of the family life cycle. Symptom formation, however, often occurs when the situation in the family is out of phase with the focal developmental tasks of the family members, such as the death of a child interrupting the child-rearing phase of the family life cycle.

Losing an immediate family member is a painful event at any time in the life cycle (Combrinck-Graham, 1983). When Combrinck-Graham developed the Family Life Spiral

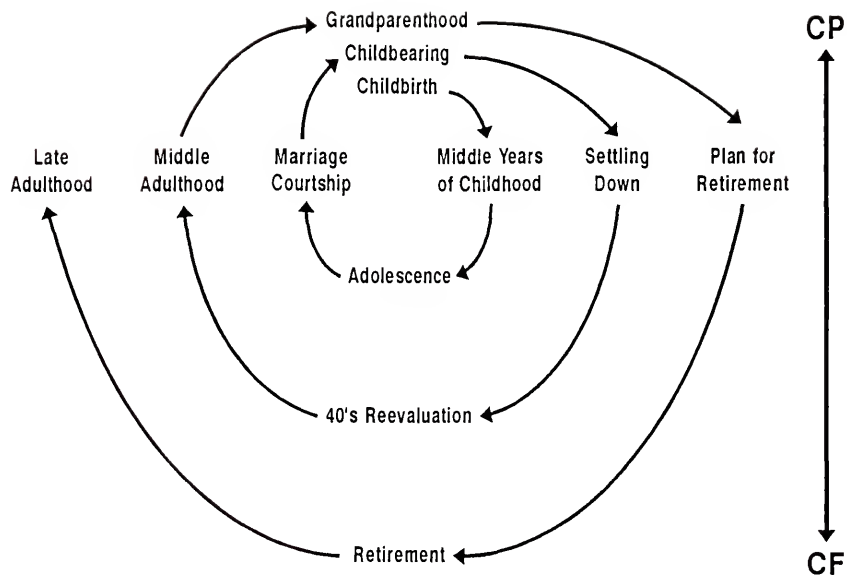


Figure 1. Family Life Spiral Model

Source: A developmental model for family systems. Family Process, 24, 139-150.
L. Combrinck-Graham, 1985.

Model in 1983, she hypothesized that because death is experienced as a departure, its occurrence may be more upsetting for a family that is not CF; the family might respond to a member's death by tightening their external boundaries even more. She also speculated that if the predominance of force is CP at a time in the family life cycle when the family should be coming apart, the family is likely to experience nonnormative stress. Additionally, she hypothesized that healthy families are those who are able to adjust their structure to meet the ever-changing needs of their members throughout the oscillations over the life cycle.

Rolland (1988a) observed that both chronic illness and death exert a CP pull on the family system. This pull increases as the level of incapacitation or risk of death increases. Progressive diseases over time are more CP in terms of their effect on families than constant course illnesses. The addition of new demands as an illness progresses keeps a family's energy focused inward; a constant course disease, on the other hand, allows a family to enter or resume a more age- or stage-appropriate phase of the life cycle. Family members facing chronic illness and death must work together to manage the situation, frequency of contact among members is increased, time for activities and contacts outside the family is minimized, and when death occurs, family members congregate to memorialize the life of the deceased person. In contrast to Combrinck-Graham's original hypothesis, Rolland hypothesized that if the death coincides with a CF period in the family, the impact would be more severe at that time, affecting the developmental tasks of all the family members. Young adults may be forced to shelve their differentiation from the family in lieu of needing to fill roles vacated by the deceased and, therefore, have their launching delayed. Midlife adults may be forced to delay or pass up new career opportunities. If death occurs at a CP period, although less severe in its impact according to Rolland, the effects may be to prolong temporarily this phase or cause families to become stuck at this point of development.

Rosen (1990a, 1990b) noted that both CP and CF forces are at work at every stage of the family life cycle, although one tends to dominate. Crises have a powerful CP force at any stage, pulling the family together to manage the crisis. Sometimes that CP pull does not produce healthy results in the family, causing the family to close and rigidify both its internal and external boundaries, making it difficult for the family to receive help from the outside and for family members to help each other. Combrinck-Graham, Rolland, and Rosen all hypothesize that the CP force of death at a CP stage may have "additive effects," resulting in arrested development or symptomatic regression as it impedes the family's progress through the necessary stages of its life cycle. When the CP pull occurs at CF stages, it may interfere with the natural momentum of the family's development and the achievement of necessary individuation tasks of those stages (Rosen, 1990a, 1990b).

The Family Life Spiral Model has the potential of being a helpful diagnostic tool if the theory behind its conception can be tested. There is clinical documentation that both CP and CF forces are normative over the course of the family life spiral, but there has been no empirical testing of the model in terms of how death affects families at the various phases, which this study proposes to do. For purposes of this study, the Family Life Spiral Model will be divided into four quadrants as delineated in Figure 2: the CP quadrant, encompassing birth, childbirth, and grandparenthood; the CP→CF quadrant, encompassing childhood, settling down, and planning for retirement; the CF quadrant, encompassing adolescence, 40s reevaluation, and retirement; and the CF→CP quadrant, encompassing marriage/courtship, middle adulthood, and late adulthood.

Need for the Study

The impact of loss at various stages in the family life cycle, and on the family as a functional unit, needs to be studied so that higher risk stages, if any, can be identified. Then different interventions that were appropriate to each stage of family development could be developed and tested. Targeting bereavement services for families that are

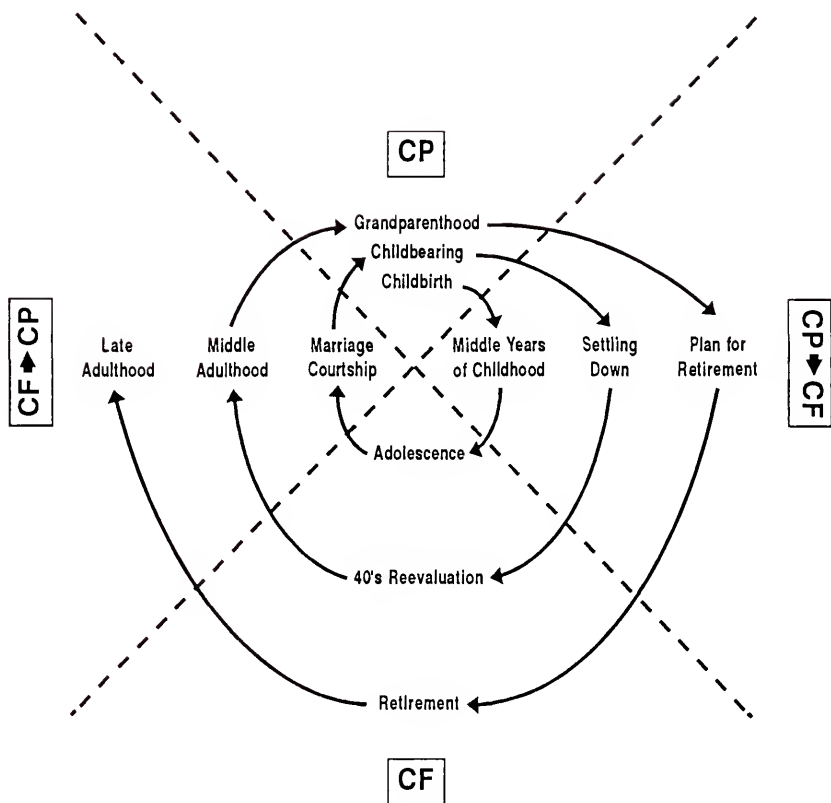


Figure 2. Quadrants of the Family Life Spiral Model

predisposed to more serious consequences may prevent a deleterious effect on the family unit when a loved one dies. Early or predeath interventions may be more beneficial and effective than postdeath bereavement interventions, partially because the dying person may be a key figure in the resolution of difficulties (Bass & Bowman, 1990).

Systemic impact of loss has been virtually unexplored with experimental research, and family therapy must move beyond clinical impressions if therapeutic potential is to be maximized. Loss has implications for how the family adapts to later experiences, and even for family members not directly related to the member who has died. "Patterns set in motion around the death of a family member have both immediate impact and long-term ramifications in family development over the course of the life cycle and across many generations" (Walsh & McGoldrick, 1991, p. xviii). The events surrounding a family death have the potential for producing growth and development as well as for setting the stage for immediate distress or long-term dysfunction. Families influence how the death is experienced and the legacies that are passed on. "By attending to family processes, clinicians can promote healthy adaptation to loss and strengthen the family unit to meet other life challenges" (Walsh & McGoldrick, 1991, p. xviii).

Quantitative studies in the area of death reactions in families are scarce. Thinking that notes the systemic effects of events that occur within families is relatively recent and has not yet generated the variety of assessment tools needed for family research. Although theory abounds about the ramifications of death on the family unit, research beyond the formulation and testing of clinical hypotheses with individual families presenting for therapy has been virtually nonexistent. Possibly this area of research has been thwarted by the plethora of variables that have been hypothesized to affect the impact of death on families and the difficulty of controlling for them in order to isolate the effects of one particular variable.

Rosen (personal communication, November, 1991) has suggested that a true experimental design testing the differences in intervention strategies for CP or CF families would be appropriate. However, the first step is to test the predictive validity of the theoretical model by seeing if there are differences among family responses that reflect the stage of the family life cycle in which the death occurs. This study takes this first step.

Although a key issue related to this theoretical model is the notion that death has a CP pull on families, that question was not addressed directly in this study; answering that question would require a longitudinal prospective study that would assess the family prior to the diagnosis of the fatal illness, since chronic illnesses themselves are believed to have a CP pull. In addition, the family would need to be observed over a period of time postdeath to measure the impact of death on their subsequent development. Obtaining such a sample is, of course, logistically difficult and impractical.

Another drawback to family assessment and family research is capturing the family's perception as opposed to individuals' perceptions of their families. Family members often do not agree with each other in describing their family system (Olson, 1989); therefore, it is important to assess multiple family members in order to construct a more realistic picture of the family system out of the areas of agreement or disagreement among them (Keeney, 1983). It is also important, both conceptually and methodologically, to find ways to combine various family members' perspectives without losing too much of the individual perspective (Larsen & Olson, 1990). Mean scores are appropriate for some families but have the effect of modifying extreme differences in others; standard deviations are a better measure in those latter instances. Composite scores are appropriate for some instruments (McCubbin & Thompson, 1991). For others, family discrepancy scores or incongruency scores indicate the relative levels of agreement among family members as to their perceptions of the dynamics in their family (Olson et al., 1983). Whereas mean scores conceal individual differences, discrepancy scores highlight the differences. In

some instances, discrepancy scores can be complementary to mean scores, providing a fuller picture of the family as a whole. However, even the best methodology may leave critical gaps in representing the "true" family dynamics; for example, only those family members who agree to participate and only those who are old enough or not too old, able to read, and are not handicapped in some physical or emotional way will be represented when objective self-report assessments are the tools of choice (Larsen & Olson, 1990).

Purpose

The purpose of this study was to test several of the predictions generated by the theory behind the Family Life Spiral Model in terms of how the crisis event of death impacts families at different points in the family life cycle. When there is a death in the family, is there a differential impact reflecting the phase of the life spiral? The importance of this study rests in its ability (a) to differentiate phases (i.e., quadrants) of the Family Life Spiral Model, (b) to determine if phase of the life spiral is indeed a significant variable influencing the perceived impact of death on family members, and (c) to discern which phase of the life spiral may be at higher risk for symptomatic reactions to the stressor of death.

This author believes that there are now family assessment tools that allow the measurement of the impact of death on families and the identification of the most significant of the variables and that there are statistical programs now available that can control for variation influenced by other independent variables so that the variance attributable to stage of the life spiral can be isolated. The tools used to do the assessments in this study were self-report instruments of a retrospective nature. Although there are drawbacks to both retrospective and self-report assessments, such as the accuracy of an individual's memory and perception and the influence of social desirability, the advantages outweigh the disadvantages in this study because it was the composite of the family members'

perceptions of the changes that had occurred in their family over the course of a year that was considered essential.

The population was drawn from family members of patients served by the Hospice of North Central Florida, an area encompassing 11 counties. The variable, nature of death, was controlled for, inasmuch as admission to Hospice requires a diagnosis of a terminal illness and a prognosis of 6 months or less to live; thus, death was expected and was not a sudden event that occurred without warning. Because the ramifications for the family were likely to occur over a period of time after the death (Hadley et al., 1974), assessments were made at 1 year postdeath and were a composite of the family's reflections of events that occurred in their family since the death of their loved one.

Variables to be Measured

In addition to stage of the life spiral as the primary independent variable, several other variables that also influence the impact of death on families were measured. Differences were expected between phases of the family life spiral on these variables: the adaptability and cohesion of the family, the family's degree of expressive communication, and the degree of social support the family utilized when adapting to the stressor of death. Adaptability and cohesion were measured by the Family Adaptability and Cohesion Evaluation Scales (FACES-II); expressive communication was measured by the Family Environment Scale (FES), Expressiveness subscale; social support was measured by two subscales from the Family Index of Regenerativity and Adaptation--General (FIRA-G), the Social Support subscale and the Relative and Friend Support subscale.

The instrument used to measure the dependent variable, FILE, was designed strictly as a retrospective self-report assessment tool. Many of the items pertain to the objective assessment of behaviors and events in the family's life over the year past; others refer to changes requiring a subjective judgment as to their occurrence (McCubbin & Thompson, 1991). Each family member fills out a FILE, and a composite is made for all of the family

members who are assessed. The differences in members' perceptions of their family situation are also measured and represented by family discrepancy scores. The other instruments used in this study were also self-report tools assessing family members' perceptions of ongoing styles of interaction within their families. They, too, were designed to be filled out by each member and a composite made for all members. It is believed that this multiple perspective on the family, a form of "double description" (Bateson, 1979), produces a more accurate representation of the family as a system than one individual's perception of their family.

Research Questions

Little empirical research has been carried out on the impact of death on families, and none has been done with phase of the life spiral as the independent variable. Since the family life spiral is a primary lens through which families are assessed and theoreticians believe this to be a significant variable determining how death impacts families, testing the significance of this appears to be an appropriate target for a research study. Because there are other variables believed to be of importance in assessing a family's vulnerability to adjusting to a loss and because those variables are expected to vary by phase of the life spiral, those variables were also measured. The goal of this study was to expand the body of knowledge used to explain the impact of death on families and to determine which phases of the family life spiral may be at the greatest risk for experiencing undesirable outcomes. To this end, the following research questions were posed:

1. Is there a difference in impact, both in degree of stress and type of stress, reported by family members at different phases of the family life spiral when there is a death in the family?
2. How do the levels of disagreement among family members at CF phases compare with other phases of the family life spiral?

3. Do family members at different life spiral phases differ in terms of reported levels of expressive communication, social support, family cohesion, and family adaptability?

Definition of Terms

For the purpose of this study, key constructs and terms are defined as follows:

Adaptability. Family adaptability is defined as the extent to which the family system is flexible and able to change its power structure, role relationships, and relationship rules in response to situational and developmental stress (Olson et al., 1985). For the purposes of this study, adaptability was determined by the adaptability score from FACES-II.

Centrifugal. The term centrifugal, originating in the field of physics, implies a moving away from the center. Applied to families in a metaphorical sense, CF phases of the Family Life Spiral are those with an outer orientation and developmental tasks that emphasize personal identity and autonomy. Stages of the family life cycle when these tasks predominate are adolescence, midlife, and retirement. The external family boundary is loosened, and distance between family members increases as family members begin to expect gratification from, and put their trust in, activities and relationships outside the family unit (Beavers, 1982).

Centripetal. Also originating out of physics, the term centripetal implies a moving towards the center. The CP phases are those with an inner orientation requiring intense bonding and cohesion, such as early childhood, child rearing, and grandparenting. According to Beavers (1982), CP families look predominantly within the family for gratification and tend to be more trusting of family members than outsiders. During CP periods the individual and the family's life structure emphasize internal family life. External boundaries are tightened while internal boundaries may be more diffuse to enhance communication and teamwork.

These forces then, CF and CP, are in opposition to each other, an opposition that generates the oscillation characteristic of the family life spiral. It is expected that both forces operate simultaneously throughout the life spiral but that a different force predominates at each life cycle stage depending upon the developmental tasks the family is facing as they progress through the life cycle.

Cohesion. Family cohesion assesses the degree to which family members are separated from or connected to their family and is defined as the emotional bonding that family members have toward one another. Cohesion incorporates concepts of emotional bonding, boundaries, coalitions, time space, friends, decision making, interests, and recreation (Olson et al., 1985). For the purposes of this study, cohesion was determined by the cohesion score from FACES-II.

Communication. In this study, communication is defined as the extent to which family members are encouraged to act openly and to express their feelings directly with one another. Communication was measured by the expressiveness subscale from FES for this study.

Family. For purposes of this study, a family is described as being a group of two or more persons living together who are related by blood, marriage, or adoption (McCubbin & Thompson, 1991).

Family life cycle. This is a term used to describe the normal development of families in the management of tasks and events related to the entry and departure of individuals from the household (Carter & McGoldrick, 1988). Child rearing is the element around which the family life cycle is organized. Various lineal models of the family life cycle exist that organize the developmental schema into any number of stages--5, 7, 8, or 24 (Carter & McGoldrick, 1988; Duvall & Miller, 1985; Olson et al., 1983). Traditionally, the lineal models have mapped the developmental progression of a three-generational family

system that is understood as an ever-renewing system in which new generations are added and others die out; individual life cycles evolve within the context of the family life cycle.

Family life cycle stage. This is the stage in which each family perceives themselves to be based on the chronological age of children present in the home. For families whose children are all launched, stage is determined by age of oldest grandchildren, if 5 or under; or on the developmental tasks the members are working on if all children have been launched and there are no grandchildren, or oldest grandchildren are over 5.

Family Life Spiral Model. This is a model developed by Lee Combrinck-Graham (1983, 1985) in which she transformed the traditional lineal models into a spiral model that suggests an ongoing movement throughout time, the life of the family continuing on as new generations are added. It consists of four phases that are simultaneously experienced from three different positions within the family life spiral (see Figure 1). The model portrays the recursions inherent in the life cycle as one oscillates from CP phases to CF phases again and again and again.

Family Life Spiral phase. In this study, this term denotes the four different phases (CP, CP→CF, CF, CF→CP) that families pass through over and over again throughout time as generations are added and others deleted. The artificial boundaries separating the phases are the quadrants, and these terms are used interchangeably in this study. Each phase or quadrant incorporates three stages of the family life cycle simultaneously experienced by three generations within the family. When a family is at a CP phase of the family life spiral, it is assumed that they are operating in a CP style, with characteristics as defined previously, and the same is assumed for each of the other phases.

Impact of Death. The impact of death in this study is defined in terms of the changes in the life of the family in the year postdeath. These changes encompass the stresses of intrafamily and marital relationships, pregnancy and childbearing, financial and

business strains, work-family transitions, illness and family caregiving strains, losses (other than the death of the Hospice patient), transitions in and out of the family, and family legal violations (McCubbin & Thompson, 1991). For the purposes of this study, the impact of death was measured by FILE.

Nature of death. Nature of death in this study is anticipated, as opposed to sudden and unexpected with no time to prepare. (This is distinguished from timing in the life cycle, when unexpected would refer to age of deceased at time of death.) For participants in this study, the death of their family member had been anticipated and was not sudden and unexpected.

Social support. Social support is defined here as the family's perception of the degree to which they view relatives, friends, and the community as a source of emotional and network support to them in the management of their stressors and strains (McCubbin & Thompson, 1991). For the purposes of this study, social support was measured by two subscales from FIRA-G, the Social Support subscale and the Relative and Friend Support subscale.

Organization of the Study

Chapter 2 of this study is a review of the related literature. Following Chapter 2 is a delineation of the methodology in Chapter 3, containing a statement of the purpose of the study, hypotheses, delineation of relevant variables, data analysis, description of the population, subjects, sampling procedures, data collection, and instrumentation. Chapter 4 is a presentation of the results of the statistical analyses of the data. Chapter 5 includes a discussion of the results, implications for therapy, limitations of the study, and suggestions for further study.

CHAPTER 2 REVIEW OF THE LITERATURE

And ever has it been
that love knows not its own depth
until the hour of separation.
--Kahlil Gibran

Introduction

To live is to lose. One can simply not escape loss (Viorst, 1986). One of the most difficult events we confront in the life cycle is the loss of a loved one through death. When a close family member dies, the lives of the individuals as well as the life of the family as a unit are dramatically changed. Most family members acknowledge that life will never be the same. For many, life takes on a much deeper meaning with the perspective that life is a beautiful gift, however fragile. Coming to terms with the fullness of the life cycle's evolutionary process from birth to death is one of the most painful adaptational tasks we face.

Survivors' lives are irrevocably altered by their encounter with loss (Bowlby, 1980). Researchers have shown that one of the greatest stressors for individuals is the death of a family member (Hare-Mustin, 1979; Holmes & Rahe, 1967). Although the finality of death seems to bring the life cycle to a standstill, life does continue after a loss. Just as birth connects one human to another in the shared life cycle, so does death connect the deceased and the survivors (Walsh & McGoldrick, 1987). Not only is the family's life cycle greatly influenced by death, but the family's response to death is greatly influenced by their life cycle development (Bowen, 1976; Herz, 1980; Herz-Brown, 1990; Rosen,

1990a, 1990b; Walsh & McGoldrick, 1987, 1991). Death impacts the family as a unit as well as each of its members who have a different relationship with the deceased. "When links in the familial chain are broken by separation or death, disturbing social and psychological disruptions are often created" (Raphael, 1984, in Sanders, 1989, p. 147). And the impact of death continues to reverberate throughout the family system (Bowen, 1976), sometimes for generations as an unresolved legacy (Paul, 1967, 1974; Paul & Grosser, 1965).

Sociocultural Influence

One of the reasons families in American culture have a difficult time adapting to the death of a close family member is that they often have little prior experience with death, making adaptation difficult. Death in the home used to be a natural occurrence. Postmortem preparation and funeral rituals took place in the home, thus being integrated directly into family life. Families essentially had no choice but to face the pain of the end of their loved one's life. As the geographical distance between family members increased and medical practice and technology developed, individuals were encouraged to be admitted to hospitals or institutions for care of life-threatening conditions. This was reinforced by the institution of Medicare and Medicaid in 1965, and the family was removed from direct hour-by-hour contact with the process of dying (McCusker, 1983; Mor & Hiris, 1983). This "antiseptic" approach to death may have proved more harmful than helpful, for it is in our family experience that we learn how to face death. Recent generations of children have found themselves in middle age never having seen a corpse or attended a funeral, with no previous opportunity to incorporate a meaningful concept of death into their concept of life (Pattison, 1977).

In 1984, 90% of the deaths in the U.S. occurred in a hospital or other health-care institution (Vital Statistics of the U. S., 1991). Two factors contributing to this high rate are the increased geographical mobility and distance between family members, as well as

the involvement of more and more women in the work force, making it difficult for family members to care for terminally ill and dying members. There are indications of a shift in this tendency as more home-care programs like Hospice are made available (McCusker, 1983; Mor & Hiris, 1983), enabling the terminally ill to die at home. By 1988 the percentage of deaths in the hospital had dropped to 75% (Vital Statistics of the U. S., 1991) and in 1992 the estimate was 70% based on local figures (A. S. Beckner, personal communication, October 14, 1992).

At the beginning of the 19th century life expectancy was slightly over 34 years; by the beginning of the 20th century it had increased to 47 years; and now as the 20th century draws to a close, life expectancy is nearing 75 years of age (U.S. Bureau of the Census cited in Hargrave, 1992; Walsh & McGoldrick, 1987). Previously, children could expect to witness the death of a parent before they grew up and left home and certainly were more likely to witness the death of siblings to childhood illnesses (Scott & Wishy, 1982, cited in Walsh & McGoldrick, 1987). Now a person's first experience with death of a close family member is often the loss of a parent when the child is middle aged.

Death of a family member in our culture appears to cause greater psychological impact than in other cultures (Rando, 1984). Our increasingly smaller families and our increased geographical separation from extended family tend to breed family systems with overidentification and overdependence. Emotional attachments to particular people become the norm and make for a higher vulnerability to stress. The nuclear family's bond far outweighs that of the extended family network, and so dependency needs are relegated to a smaller circle (Sanders, 1989). The emotional investment becomes more focused and intense, and there are fewer members to share the loss.

Our culture places great emphasis on preparing ourselves materially for death (Paul & Grosser, 1965). The life insurance industry, the social security system, programs for economic security of survivors via trusts and wills, and prepaid burial plans are all

evidence of our willingness to prepare ourselves financially for the eventuality of our own death. However, we take very little care to prepare ourselves psychologically and may not even commemorate or ritualize the death of a loved one, perhaps to avoid the psychological pain assumed to be associated (Imber-Black et al., 1988), or possibly because of our deceptive emphasis on rationality (Paul & Grosser, 1965).

Frequency of Death

Estimates of 1-year incidence rates of bereavement range from 5% to 9% (Osterweis et al., 1984), amounting to an estimated 13,000,000 to 20,000,000 people who experience the death of an immediate family member annually (Vital Statistics of the U. S., 1991). It is estimated that 12,000,000 people lose a parent every year; 800,000 lose a spouse; and 400,000 deaths are children under 25. Two and a half million of those who lose a parent are children under the age of 18; 99% of those deceased parents are fathers (Barth, 1989; Osterweis et al., 1984; Walsh & McGoldrick, 1987). In a key study of normal families across the life cycle (Olson et al., 1983), researchers found that 19% to 23% of the 1000 couples interviewed had lost a parent or close relative in the preceding year. In view of this being a percentage based on the couple's response, it is in close proximity to the upper end of the estimate by Osterweis et al. (1984).

Although death is in some ways always expected, in that the only guarantee in life is that we will die, it does not occur with sufficient frequency to be considered a normal everyday occurrence in the life of a family. Therefore, its occurrence does not provide a situation wherein a family can call on previous adaptive skills to help them through. Certainly the majority of deaths do not result in a debilitating impact on families. Some families rise to the challenge of coping with this experience, and some family members actually do better, appropriately growing and differentiating from the family as it used to be (Tietz et al., 1977). A third of all major bereavements, however, result in problems for which professional help may be required (Raphael, 1983; Sanders, 1989).

Ramifications for Family Therapy

The family therapy field has paid a lot of attention to certain issues affecting families: physical and sexual abuse, impact of divorce, substance abuse, and eating disorders. However, there has been relatively little attention paid to the impact of death on families. Walsh and McGoldrick (1991) initiated a landmark treatise on the impact of death on families as observed in the clinical setting. Others have had input also in highlighting this as an area in need of our attention as family systems therapists (Bowen, 1976; Brown, 1988; Herz Brown, 1988; Paul & Grosser, 1965; Rolland, 1988a, 1988b; Rosen, 1990a; Walsh, 1988). However, death is more than just another content issue for families. A significant loss represents the symbolic death of the family as they had experienced it (Greaves, 1983). Death modifies a family's structure and demands a reorganization of the family system that will guarantee its viability in the future. The individual's reaction cannot be isolated from that of the family as a whole. For the individual the disruption in behavior and personality functioning is symptomized through grief and mourning (Lindemann, 1944; Rubin, 1986). Each person's response, whether functional or not, has consequences for each of the other family members. The impact of loss on the family, characterized through impact on their function and relationships to one another, can only be appropriately examined in light of the entire interactional system (Rubin, 1986; Walsh & McGoldrick, 1991).

From Individual to Family Impact

Individual Perspective

Sigmund Freud's "Mourning and Melancholia" (1917) is the 20th century's first major treatise on the effects of death on adult survivors and was written from an individual psychodynamic perspective, focusing on the psychological process of detaching from the lost object. Another psychiatrist, Erich Lindemann (1944), studied the impact of death on family members and relatives who survived the loss of a member in the 1942 Boston

Cocoanut Grove nightclub fire. Although most of his observations had to do with individuals' reactions, one of his predictions about the type and severity of the grief reaction was based on his observation that the overall makeup of the family network was more predictive of the reaction than was the individual's coping mechanisms for stressful situations. "Not infrequently the person who passed away represented a key person in a social system, his death being followed by disintegration of this social system and by a profound alteration of the living and social conditions for the bereaved" (Lindemann, 1944, p. 146).

Freud's hypotheses about the importance of the mother-child relationship and consequent separation anxiety in human development became the central focus of Bowlby's (1961, 1980) research on the relationship between attachment and loss in infancy and childhood. His findings indicated that early childhood loss resulted in disturbed patterns of attachment behavior, eventually leading to chronic stress and severe depression. Distinguishing pathological grief from normal grief reactions became the focus of other psychodynamic grief research as well (Volkan, 1970, 1974).

Subsequent bereavement studies addressed age or relationship to the deceased (Cain, Fast, & Erickson, 1964; Eisenstadt, 1978; Fleming & Adolph, 1986; Johnson & Rosenblatt, 1981; Kranzler et al., 1990; Moody & Moody, 1991; Norris & Murrell, 1987; Parkes, 1964, 1970b, 1975; Raphael, Cubis, Dunne, Lewin, & Kelly, 1990; Sanders, 1986, 1989; Schumacher, 1984), gender (Glick, Weiss, & Parkes, 1974; Parkes, 1970a), ethnicity (Carter & McGoldrick, 1988; Rosenblatt, Walsh, & Jackson, 1976), symptomatology upon clinical presentation (Zisook & Lyons, 1989-90), or type of illness or death (Binger, Ablin, Feuerstein, Kushner, Zoger, & Mikkelsen, 1969; Bolton, 1984; DeFrain, 1991; Williams & Stafford, 1991). These studies, some anecdotal and clinical observations and others of an experimental design, focused on the individual. Later researchers focused on the dyad, for example, the effects on marital couples of the loss of a

child (Brubaker, 1985; Feeley & Gottlieb, 1988-89; Helmrath & Steinitz, 1978; Lauer, Mulhern, Wallskog, & Camitta, 1983; Rando, 1983; Schwab, 1992; Shanfield et al., 1984). Finally, Raphael (1983) and Parkes (1987-1988) both organized extensive reviews of the bereavement literature.

Family Perspective

Eventually, some of these same psychodynamic researchers began to note the influence on the family of the death of a loved one. Paul and Grosser (1965), after acknowledging the dearth of literature on the family's resolution of grief and the few studies based on empirical research, recorded clinical observations of schizophrenic patients and their families, which suggested an association between the onset of schizophrenia and the disruption to the family's equilibrium because of a previous death and described the subsequent difficulties of some families to adapt to the changing role demands on family members.

In 1974, Paul, on the basis of clinical impressions, hypothesized that there is a direct relationship between the maladaptive response to the death of a loved person and the permanence of symbiotic relationships within the family. Suffering a significant loss many years previously with little empathy within the bereaved system seemed to produce family styles that were unresponsive to further losses and disappointments. The family may try to keep one of its members in an inappropriately dependent position or as a scapegoat to maintain the family equilibrium. It was this observed fixation in the mourning process that prompted Paul to intervene with a corrective grief experience he called "operational mourning" to free the family members from their inability to be empathic with one another.

Evans (1976) and Aleksandrowicz (1978) both noted in discussing clinical cases that extensive individual psychiatric work with symptomatic children had not alleviated the presenting symptomatology, presumably because the families had not coped with the mourning process after the death of a close family member. It was clear that a loss affects

all members of the family and that one person's mourning affects everyone else in the family.

Pattison (1977) suggested that how the family responds to a death has more impact than the event itself. If the family incorporates and embodies the cultural denial of death and fails to integrate it appropriately within the family or if the family deals with the death by avoiding discussion of it or mystifying it, psychopathology for the children will be much more likely to occur.

Parkes and Weiss (1983), through anecdotal accounts, began to observe that bereavement seldom affects only one survivor. The entire family of the deceased person could be traumatized sufficiently by the loss to create estrangement between family members. Defensive reactions impede attempts to establish new alignments within the family; anger and anxiety by ambivalent survivors is sometimes inflicted upon other family members close to them. Consequently, the family may cease to be supportive and acquires the potential to be destructive.

With a family systems orientation, theorists began to stress the importance of going beyond a psychoanalytic viewpoint in order to recognize and treat the stress on the entire family system when death of a close family member occurs (Hare-Mustin, 1979). Death was seen to be the precursor of underlying problems, including an increase in family conflicts, school problems for children, role confusion, isolation of the family or individuals, or overdependency of one member upon another.

Empirical Research

A few researchers began to try to capture a family's reaction to death by measuring the individual members within the family. Lewis et al. (1976) noted some dramatic differences in families they were studying with regard to the interplay between physical illness and the family system. Families who discussed death in a personalized way in constructing a story ending to a taped vignette of a dying person had a significantly higher

number of days in which no family member was ill, suggesting that there was a relationship between a family's openness in discussing death, the amount of empathy they showed, and their own physical well being.

Psychiatric help was needed for at least one family member in half of the 23 families participating in a study of families who had lost a child to leukemia (Binger et al., 1969) and in 25% of families of cystic fibrosis children who died (Kerner, Harvey, & Lewiston, 1979). There was a high incidence of emotional and health problems in parents of the cystic fibrosis children and an unexpectedly high incidence of incomplete mourning as indicated by weekly visits to the grave 2 years postdeath or maintenance of the child's room as a shrine. Siblings of cystic fibrosis patients (Kerner et al., 1979) had fewer adjustment problems than siblings of leukemic patients (Binger et al., 1969), possibly due to the length of the illness and no hope of cure in cystic fibrosis patients.

Tietz et al. (1977) interviewed disadvantaged families who had lost a child 1 to 3 years earlier due to cancer to assess the psychological ramifications of the death. In addition to clinical depression in a significant number of the parents and psychosomatic complaints in both children and adults in the families, they observed school achievement problems and behavior problems in the surviving siblings.

In a retrospective study of families who had experienced the death of a child with cancer 7 to 9 years previously, many of the parents and siblings were still experiencing pained loss at the time of the study (McClowry, Davies, May, Kulenkamp, & Martinson, 1987). The empty space created by the child's death was a characteristic noted by many of the participants, and different patterns of grieving were noted with the family's response to that empty space.

Norris and Murrell (1987) conducted a longitudinal study to determine differences in health and stress levels for families who experienced loss of an immediate family member and those who experienced no losses. These researchers found no significant

difference in health effects, but they did note a sharp, significant increase in psychological distress, regardless of prebereavement stress. There were no significant differences between losses due to chronic illness and expected death and sudden unexpected losses, suggesting that anticipatory grieving did not alter adaptation.

In another study, however, family members were found to have significantly increased morbidity rates following the death of one of their members (Huygen et al., 1989). The increase in serious morbidity was still significant 4 years after a death in the family. Morbidity levels were higher after deaths from acute illnesses than death from chronic illnesses. Families with prior history of nervous symptoms showed elevation of morbidity in the period before the loss; after the death, the difference gradually decreased, suggesting that bereavement may cause a shift in the system that changes the function of these behaviors.

Raphael et al. (1990) longitudinally studied the adjustment of adolescents who had suffered parental loss and found higher levels of general health problems, more neuroses, introverted personalities, impulsive behavior, and more negative views of their school performance. Interestingly, losses due to death were not significantly distinguished from losses by separation or divorce.

A study of the effects of all deaths in a family over four generations of a family's history (Jordan, 1991-1992) showed different effects on family functioning for men and women. A husband's stress and loss history was found to predict his spouse's and child's level of satisfaction with the family and, in turn, the satisfaction level for the couple and the family as a whole, whereas the reverse was not true for wives. The wife's traumatic loss history was correlated positively with her husband's current level of symptoms, not her own, which speaks to the notion of reciprocity in marital functioning. Women with high levels of traumatic loss seemed to become caretakers of men with high levels of psychological symptomatology, allowing the wife to "overfunction" and the husband to

"underfunction." Traumatic losses may have served as growth catalysts for the women since much of grief work involves affiliative tasks, traditionally more characteristic of women's roles. Other intriguing findings of this study were that wives with greater stress and loss histories were in couples that had greater husband-wife discrepancies in their perceptions of the family. They were significantly different from nonclinical couples in that they had more difficulty in achieving shared consensus about the family and had lower levels of actual and ideal cohesion and adaptability. Jordan noted that the damaged worldview of a family with traumatic or multiple losses may have a deleterious adaptive effect transmitted generationally with children adopting parents' views that loss, abandonment, and suffering are the norm setting the stage for "self-fulfilling prophecies" that create difficulties in subsequent intimate relationships.

In an effort to assess generational effects, Ponzetti (1992) compared the reactions of parents and grandparents to the death of a child. Parents felt a significantly greater degree of shock, disbelief, and numbness than grandparents, although both generations experienced some physical symptoms following the child's death. There was a significant difference between parents and grandparents on their need to talk about the death, with parents feeling that need much more often; gender differences were also significant with mothers and grandmothers reporting the need to talk more than fathers and grandfathers. The bereavement of parents and grandparents was different in that parents' reactions centered on their child, whereas the grandparents' concerns were for their children (the parents of the deceased child). This study emphasizes the importance of assessing family members outside the nuclear family when a death occurs.

Family members who had survived the murder of one of their members were studied by Sprang et al. (1992-1993). Those who were found to grieve extensively were women, nonmarried, those with lower incomes, infrequent users of social supports, and those more religiously inclined.

The empirically based research studies on the impact of death on families cited above were largely carried out retrospectively through questionnaires or interview processes and the additive results of individual assessment tools. Findings were primarily noted in the areas of morbidity, psychological distress, behavioral disturbances, gender differences, social support, and generational differences.

Death as a Stressor Event

Individual Perspective

Death of a family member is a universal event that researchers agree is one of the most difficult and stressful life cycle changes families face (Dohrenwend & Dohrenwend, 1974; Holmes & Rahe, 1967). The death of one's spouse is listed as the single greatest stressor on Holmes and Rahe's Social Adjustment Rating Scale (Holmes & Rahe, 1967). Death of a child also creates such significant stress for couples that marital discord erupts and may end in divorce, further disrupting these families (Kaplan et al., 1976; Tietz et al., 1977). For a young child or adolescent the stress of losing a parent can produce high amounts of behavior disturbance within 6 months of the death (Kranzler et al., 1990) and can have lifelong impact on their development (Eisenstadt, 1978; Elizur & Kaffman, 1983; Johnson & Rosenblatt, 1981; Solomon & Hersch, 1979; Weber & Fournier, 1985). Loss of siblings, grandparents, and other close relatives, too, can be quite stressful, depending on the nature of the relationship (Binger et al., 1969; Cain et al., 1964; Schumacher, 1984).

Family Perspective

As the American family has decreased in size and increased its geographical distance from extended family members, emotional attachments to individual nuclear family members have become the norm. This makes the family more vulnerable to stress when the death of one of its members occurs (Rando, 1984). Death is a stressor event that produces a significant amount of change in the patterns of family life, altering previous

subsystem dyads, alliances, and coalitions (Rando, 1984; Reiss, 1981). When a loved one dies, it is difficult, if not impossible, for the subsystems and boundaries of the family to exist as they did before the death (Lamberti & Detmer, 1993). If the husband-father or wife-mother dies, two subsystems (spousal and parental) are affected. The death of a child affects the family's subsystems just as profoundly. The sibling subsystem has lost a member. A parent may move in to the sibling system to fill the void and "become" a child, or a child may move into the parental subsystem to "parent" the parent, which complicates the spousal subsystem. Extended family members may also be pulled in, all in an effort to reestablish equilibrium in the family unit (Detmer & Lamberti, 1991).

The immediate effects of the loss of a loved one are felt by those who are close to that person, but eventually the effects of the loss reverberate throughout the whole system of family relationships transgenerationally, necessitating changes in interconnectedness and relationships (Detmer & Lamberti, 1991). The death of a husband will affect his siblings (same generation) and his parents (older generation) and potentially grandparents and grandchildren (Detmer & Lamberti, 1991). The reactions of those close to the dead family member initiate a cycle of change in others. Stress is generated not only in the immediate impact on those close to the deceased but also as a result of the reactions that are produced in the rest of the family system (Gelcer, 1986). Valeriote and Fine (1987) differentiate between the primary effects of a loss (the immediate impact on those who are close to the dead person) and the secondary effects which are the result of changes produced at the primary level.

Bereavement will affect the family system in many ways. The death of a member means the system is irrevocably changed. Interlocking roles, relationships, interactions, communications, and psychopathology and needs can no longer be fulfilled in the same way as before the death. The family unit as it was before dies, and a new family system must be constituted. The death will be a crisis for the family unit as well as for each individual member and each component subsystem. The family view of itself, the family myth, may be impossible to maintain, and all that it avoided may have to be confronted. The threat to the integrity of the family

unit may come not only through the change that loss of a family member brings, but also because that member may have occupied a key role in maintaining the system, or perhaps in regulating it in a crisis. Others may be unable to take over [the deceased's] roles and responsibilities. While the threat to its integrity may make family boundaries close over, individual members and the system itself may, in contradiction, desperately need the support and care of other systems. (Raphael, 1983, p. 54)

The vulnerability of the family will be mediated by its ability to receive support, requiring the family system to be open to extended family and friends outside the immediate family (Detmer & Lamberti, 1991).

The Effect of Stress on the Family

Demands for Change

Theories about stress and families originated in the field of sociology. Hill (1949) was one of the first to examine why stressor events such as losses, illness, or separation produced such a variety of differences in families' abilities to adapt. Families tended to be more stressed by situations for which they had little or no prior preparation or situations that demanded a change in their familiar patterns of functioning. The more change that was required, the more hardship there was on families.

Demand Overload

Patterson and McCubbin (1983) hypothesized that cumulative family life changes would be associated with a decline in family functioning. This was corroborated by Bass and Bowman (1990) who reported that families with more caregiving strain for a terminally ill member were also the families with greater bereavement strain. These families were also more likely to utilize bereavement services and resources suggesting that the amount of relief that was felt when the caregiving obligations were over was not offset by the strains long-term caregiving imposed. McCubbin and Patterson (1983) further contributed to the development of the family stress theory by developing an adaptation of Hill's (1949) family crisis model to include the effects of stress when a family was already experiencing a pileup of life events taxing the family system. Since developmental transitions are already

stressful points in the life cycle, additional demands made at those times could be expected to create a high risk situation (Golan, 1978).

Reestablishing Balance

As the family struggles to regain equilibrium in response to a loss, adaptation is necessitated, and a great deal of emotional energy is directed towards reestablishing balance in the system. The system as a whole as well as individual members are all affected (Rando, 1984).

The family's prior implicit functioning may be replaced by explicit rules as they struggle to maintain control. If interactional patterns lose their implicit capacity and rely totally on explicit constraints, the family becomes a source of tyranny for most of its members, and family disorganization or dissolution becomes severe (Reiss, 1981).

Predicting the relationship between stress and family disorganization is an inexact science. Although Rosen (1990a) suggested that families respond fairly characteristically to crises, responding in the present much as they did in the past with an established emotional style, other researchers find families to be less predictable. Sometimes a family may be subjected to severe stress and show little disorganization; at other times in their development, a similar stressful event may be overwhelming. Reiss (1981) highlighted two factors to be of primary importance: the family's level of organization at the time of the stressor event and the quality of its ties with its social environment. Lewis (1986), too, highlighted the organizational structure of the family as a factor influencing how a family responds to stress. He described one of the family system's essential tasks as distance regulation, with most families living with some type of balance between separateness and attachment. Well-functioning families tend to have organizational structures that allow for both. This has a powerful influence on how the family responds to normative stress. Lewis hypothesized that stress arises when individual family members' needs for separateness and attachment occur at different times. The relationship of the family life

cycle to changes in family organizational structure is an important issue in understanding family stress.

Walsh (1982) pointed out that a family's ability to cope depended on their ability to manage a number of different dimensions of family life simultaneously: organization, independence, self-esteem of members, cohesiveness, social support, controlling stress, and the amount of change in the family. Coping involves achieving balance in the system, allowing for facilitative organization while still promoting individual growth and development. Studies have shown that a family's coping strategy is progressively modified over time (McCubbin, Joy, Cauble, Comeau, Patterson, & Needle, 1980).

Paradoxically, stress can be the seed from which healthy reorganization is born. Struggling to master a stressful situation may be the impetus a family needs for developmental creativity (Eisenstadt, 1978; Osterweis et al., 1984; Walsh, 1982). "The time of disorganization is a time for something new" (Reiss, 1981, p. 199). Ironically, families who have been shown to have good problem-solving skills when facing a terminal illness have experienced the loss of their loved one in a shorter period of time than those who were disorganized and poor problem solvers (Reiss et al., 1986).

Impact of Death on the Family

A family's equilibrium is disturbed when a member is lost. Murray Bowen (1976) has written a description of the family's reaction to death that has become a classic in the family systems literature. The emotional reactivity that is stirred up within families after the death of a member has been termed by him the "emotional shock wave."

The "Emotional Shock Wave" is a network of underground "aftershocks" of serious life events that can occur anywhere in the extended family system in the months or years following serious emotional events in a family. It occurs most often after the death . . . of a significant family member. . . . It is not directly related to the usual grief or mourning reactions of people close to the one who died. It operates on an underground network of emotional dependence of family members on each other." (Bowen, 1976, p. 325)

Symptoms Produced

Rosen (1990a) has written that no family who has lived with a fatal illness can remain unchanged from the ordeal. The same resources that enable families to cope and endure (being close and supportive, having intimate knowledge of each other's strengths and weaknesses) also enable them to hurt one another (Parkes & Weiss, 1983). Some families may actually function better than before; others may experience a severe deterioration of their normal functioning. Some achieve greater intimacy as a result of the experience; others break under the strain. Some are able to redistribute the roles left vacant by the deceased; others are permanently crippled by the vacated role.

Overfunctioning families may implicitly prohibit expression of grief which may lead to children expressing their grief symptomatically through acting out behaviors outside the home (Rosen, 1990a). Boundaries are violated and family systems can close up their internal and external boundaries. Families may become disorganized; exhibit anxiety through bickering, disagreements, interrupting, or substance abuse; be emotionally labile; or turn inward, avoiding discussion of emotionally charged issues or threatening ideas and idealizing the deceased. When the mourning process is suppressed, family and interpersonal conflicts are often the result (Pincus, 1974). When the family system has experienced more stress than it can deal with, it may experience ill health, extreme interpersonal conflict, or become destructive (Olson, 1988).

Investigators using empirical methods have indicated that a significant number of families who experienced the loss of a family member developed a crisis and/or symptoms requiring mental health services within 9 months after the loss (Hadley et al., 1974). Barth (1989) believes that the impact on children is more delayed, and that they are not seen in therapeutic settings until 1-1/2 to 2 years after the death, when their behavior has escalated calling attention to the family's suffering.

Depending upon the circumstances of the death, families may experience social isolation and avoidance of discussion of the death by extended family and friends, especially now with the prevalence of AIDS deaths (Rosen, 1989; Williams & Stafford, 1991). One of the significant characteristics Lindemann (1944) noted in his study was that relationships with friends and family were conspicuously altered with individuals feeling irritable, avoiding contact, and becoming progressively more socially isolated. As a result of their pain, the surviving family members often feel an immense sense of loneliness and isolation as communication among family members dwindles (Fleming & Adolph, 1986). When discussion among nuclear family members becomes constricted, the family system is at risk of becoming unable to help one another through the grieving process (Helmrich & Steinitz, 1978). Families that encourage closeness and communication appeared to experience fewer grief complications (Fleming & Adolph, 1986).

Role flexibility within the family system becomes an issue when a family member dies (Lamberti & Detmer, 1993). One of the causes of the disequilibrium families face when one of their members dies is that there is often a shift in power, responsibilities, and roles necessitated as a result of the vacancy the deceased leaves (Rando, 1988). Vacated roles may be instrumental ones such as economic support, maintenance of physical needs and socialization of the children, or affective roles concerned with the giving and receiving of love (Goldberg, 1973). Others are not as readily apparent but may leave quite a gaping hole if the person served as the peacemaker, the troublemaker, the scapegoat, or the worrier. Roles must be renegotiated in order for families to regain balance.

The reassigning of roles can be positive if families find new ways of functioning that are better than before. People may discover abilities of which they were not aware or finally be given recognition for their contributions to the family. The changing of roles can have negative consequences if roles are not appropriately reassigned: expecting another person to live in the deceased's image, robbing them of their own identity; overloading

some members of the family with more tasks than can be fulfilled; assigning a person tasks that are developmentally inappropriate; or if there is disagreement about who should or is entitled to fill a certain role.

Other roles that need to be renegotiated are the extrafamilial roles that involved the deceased, organizations that the deceased participated in, or activities with the spouse, child, or sibling (Goldberg, 1973). Lamberti and Detmer (1993) believed that less functional families feel the need to maintain certain roles in the family, and a member will appoint himself/herself to fill the role, or will be appointed by another to fill the role vacated by the death. In more functional families, the loss of the role is recognized, but no one person is expected to fill it. There is greater flexibility in the reorganization process.

Loss of a spouse. As noted earlier, Holmes and Rahe (1967) considered death of a spouse to be the greatest stressor for an individual. In a study by Bass et al. (1990), two-thirds of the bereaved spouses in their sample believed the death to be the most difficult thing they had ever faced. Given normal life expectancy, it is not unusual to have bereaved spouses who have been married 45 to 50 years. The severing of that bond is often devastating, usually leaving the bereaved spouse alone and without the source of most of their previous social interactions (Lund, Caserta, & Van Pelt, 1990). They are often excluded from the sociability of couples from that point on and are thus deprived of the normal avenues of social support that have been previously at their disposal. Women are often the social links for couples, and Lund's study bore out the differences between men's and women's social support networks following the death of their spouse. Whereas support from family members remained stable over time, grievors over age 75 reported consistently smaller networks with a noticeable decline at 6 months postdeath. Bereaved spouses under age 75, however, had sharp differences in the support available to them initially. Men had a much smaller network of support initially but increased their network

by 2 years postdeath to nearly double that of the women. Both networks of support were largely same-sex.

A general deterioration of health (Bass et al., 1990) and an increase in mortality among spouses of the deceased has been noted (Parkes, 1964, 1970b). A significant increase in the morbidity of other family members 1 year postdeath was found in a retrospective research study (Huygen et al., 1989). Stack (1982) also noted the tendency of the bereaved to present to the doctor with physical symptoms of their grieving rather than psychological symptoms and the importance of the physician differentiating grief from depression. Medicating grieverers can often retard and prolong the grieving process. Bereaved spouses were also more likely to experience financial distress, miss work, or take a job for the first time (Crosby & Jose, 1983; Parkes, 1970a). Most people whose spouse dies are at a stage in their life when no other family members are living with them. However, the ramifications in the rest of the family system can be seen in the following section.

Loss of a parent. The most common loss in our society is that of the death of an elderly parent (Bass et al., 1990). Many changes in family interaction patterns have been noted clinically when an aged parent has died (Hargrave, 1992; Morgan, 1984). Increased frequency of contact with other family members may result, especially adult children with the widowed spouse, and can be expected to have an impact on the family as a system, causing realignment of resources of time, space, and emotional involvement. Adult children may find themselves combining living arrangements with a surviving parent who is not able to live alone (Crosby & Jose, 1983).

Hargrave (1992) noted the conflict families often have over the estate of the deceased and the deeper emotional conflicts that are usually behind that. There is also the need to keep the family from disintegrating. Hargrave, as well as others (Osterweis et al., 1984), noted the reorientation adult children face when they become the senior generation

after the death of both parents, being thrust developmentally into the next stage of life and the midlife reevaluation that occurs as a result. Some studies have noted a relationship between death of a parent and increases in suicide, attempted suicide, and clinical depression (Birchnell, 1975; Bunch & Barraclough, 1971). If the bereaved adult child has not individuated or psychologically separated from the deceased parent, the grieving process may be thwarted until that developmental task is achieved (Williamson, 1978). Hargrave (1992) also described the guilt and remorse among family members who may feel they have done too much or too little over the years to resolve conflicts that did not get settled prior to the death of the family member.

Child's loss of a parent. Younger families that suffer the loss of a parent, leaving a spouse as a single parent, often face financial hardships, childrearing and home-care burdens, the need to redefine parental and familial roles, the surviving parent doing their own grief work yet aiding the children in theirs, disciplinary problems, a tendency to parentify older children, social isolation, and loss of the couple's friendship network (Reilly, 1978). Children in these families who are at risk for suffering a pathological bereavement reaction upon the loss of their parent may be predicted at risk by preexisting family and environmental factors (Elizur & Kaffman, 1983), such as (a) those children whose parents were divorced, separated, or experiencing marital discord; (b) those children whose relationship with the surviving parent was disturbed; (c) those children whose surviving parent exhibited emotional restraint; and (d) those children who had no substitute parent figure.

Whether or not children are allowed to make their own decisions about participating in death rituals also is a factor associated with a child's bereavement reaction. Weber and Fournier (1985) found that families who were most cohesive tended not to allow their children to make their own decisions about participating in death rituals; this tendency often led these children to experience confusion and a greater need for support. Barth (1989)

believed that grieving children were more likely to display anxiety, shyness, or depression rather than behavior problems in a school setting.

Although some children who lose a parent fare well and channel their grieving into creative outlets, others often demonstrate nonresolution of their grieving resulting in antisocial behavior (Eisenstadt, 1978). Early parental loss for children has been associated with the development of depressive disorders and increased suicide risk (Osterweis et al., 1984). The younger a child is, the more difficulty the child may have in adapting to the loss. Developmentally children lack a cognitive framework that helps them to understand the nature of death and dying. They are more dependent on the structure of family routines and are less able to deal with the widespread disruption that follows the death of a parent (Barth, 1989). Children learn how to grieve by modeling their parents. Parents who are dealing with the loss may feel the need to be strong for their children in an effort to keep the emotionality of the family in control. If the surviving parent is not openly expressing emotion over the loss of their spouse, children in the family may conclude that showing emotions is inappropriate, and the whole family may stifle their emotions in an effort to protect one another (Moody & Moody, 1991).

The family with an adolescent or young adult in the launching stage often experiences the onset of symptoms in family members when there is a loss at this time (Haley, 1973). In a study by Raphael et al. (1990), adolescents who had lost a parent had higher levels of health problems and more neuroses, were more introverted and impulsive, and reported being more sexually active. The transgenerational impact of death has been noted in psychiatrically hospitalized young adults whose symptom onset was found to be associated with both concurrent grandparent loss and the patients being the same age as their parents when a grandparent had died (Walsh, 1978).

Female adolescents were more likely to become involved in sexualized relationships following parental loss in search of comfort and reassurance, whereas males were more

likely to engage in delinquent behavior, criminality, or drug abuse. These findings are further validated by examining histories of male and female prisoners that reveal an excess of parental death compared to a normal population (Osterweis et al., 1984).

Drug addiction in families has also been found to be significantly related to premature loss and initial drug use (Coleman, 1980; Coleman et al., 1986; Coleman & Stanton, 1978; Stanton, 1978, 1980; Stanton, Todd, Heard, Kirschner, Kleiman, Mowatt, Riley, Scott, & Van Deusen, 1978). Addict families have been found to experience a higher proportion of traumatic, untimely, or unexpected losses of family members than would be expected in the normal population. The addicts in these studies perceived their families as discussing death and dying less frequently than normal families and also tended to minimize death-related issues, although death issues were often a topic of discussion in therapy sessions by the addict's initiative (Coleman et al., 1986; Stanton, 1978). These researchers hypothesized that these losses had not been effectively resolved resulting in the drug abuse.

Loss of a child. The loss of a child is an immense loss for parents, a time when they feel they have literally lost part of themselves and certainly some of their hope for the future (Schwab, 1992). The strain of such a death on a marital relationship sometimes results in separation and divorce. In a study by Nixon and Pearn (1977), 7 of 29 marital couples had separated following the drowning of their child. No separations occurred in the 54 couples whose child had survived a near-drowning. Five of the couples who experienced a loss were more resilient in response to the loss, indicating that the tragedy had actually brought them closer. In another study of divorce among bereaved parents, Klass (1986-1987) concluded that divorce occurred more often because of preexisting problems in the marriage--there was simply no longer a reason to struggle with the marital problems after the child had died.

Helmrath and Steinitz (1978) conducted a research study of the parents of newborn infants who died shortly after birth and reported a sense of extreme isolation by the parents. The extended family and the community's avoidance of discussion of the death seemingly to protect the parents actually resulted in extreme distress for the bereaved parents. They also reported a disturbance in communication between the parents as each grieved at a different pace and often in different ways. This was corroborated in research carried out by Schwab (1990) which found that there were significant differences between mothers and fathers of deceased children in the use of certain coping strategies. Mothers were significantly more likely to cry and write about their loss and grief as a means to seek release from the tension; they were more likely to read about loss and bereavement, to engage in helping others, and seeking support through an organized group. Themes that most frequently emerged in later studies of the effects of a child's death on the marital relationship included the husband's concern and frustration about their wife's grief, wives' anger over husbands not sharing their grief, communication difficulties, loss of sexual intimacy, and general irritability between spouses. Intense grief reactions were also predictive of loss of intimacy in bereaved mothers and fathers in a study by Lang and Gottlieb (1993).

Parents whose babies died of Sudden Infant Death syndrome were followed longitudinally in a research study by Zebal and Woolsey (1984). Two months after the death of their infant, when the reality had set in, external supports were waning. Woolsey (1988) found similar results concerning social support for parents after SIDS deaths. Benfield, Leib, and Vollman (1978) studied the effects of SIDS deaths on the marital bond and reported that when communication between the couple was poor, critical emotional issues were not discussed for an extended period of time. Zebal and Woolsey (1984) attributed some of the difference in interactional patterns in the marriage to the differences between the genders in their respective styles of grieving. Mandell, McClain, and Reece

(1988) found that fathers of SIDS infants increased their involvement with their work, were stoic, and appeared to have a limited ability to talk about their feelings or ask for support. In Mandell's (1980) study of SIDS parents, 6 of the 28 couples had divorced after the death of their infant.

Families who lose a child member experience a disequilibrium which may weaken the parents' ability to help their remaining children adjust. They may be unresponsive to the children, unavailable, or detached. Normal exchanges about everyday matters become unimportant, and the remaining children feel the ambivalence of the parents and can begin to question their value to the family. Young siblings feel the withdrawal of the parent and, consequently, the feeling of being loved. They may feel abandoned or punished and may develop fears about themselves (Lewis, Lewis, & Schonfeld, 1991). Fulmer (1983) described the role of the misbehaving child in response to the depressed and anxious surviving parent. It is not unusual for the surviving children to feel guilty because of their sibling's death and to begin to develop symptomatic self-punishing behavior as a result. Parents can feel a real fear of becoming closer to their other children and then losing them as well. They can also become overprotective, stifling the normal developmental process (Arnold & Gemma, 1983; Cain et al., 1964; Payne, Goff, & Paulson, 1980). Siblings can influence and help each other through the bereavement period and may compensate for many of the difficulties parents experience during this time in consoling the other children (Rubin, 1986).

Both positive and negative behaviors have been seen to increase after the death of a child in a family (DeFrain, 1991). Some children become more attentive to their parents' and siblings' needs and others become more frightened, angry, or withdrawn. A small research study 1 year postdeath of families who had lost a child to cancer showed that of the 26 surviving siblings, 15 developed behavior problems such as delinquency, aggression, and poor relationships with parents (Tietz et al., 1977). Eight manifested

school achievement problems and six developed psychosomatic complaints. Mandell et al. (1988) studied families of SIDS babies and noted behavioral changes in siblings in terms of sleep patterns, social interactions, and parent-child interactions which were a reflection of their own as well as their parents' adjustment.

The interaction of parents and children in each possible configuration can exacerbate or mitigate each individual's response to the loss as well as that of the family as a whole. The powerful impact of the loss upon family members strains their capacity to cope and help each other after the loss occurs (Rubin, 1986). The fact that adults and children have different capacities for grieving is another contributing factor. For very young children, the parental response will influence their cognitive and emotional adjustment. Parents who can model appropriate emotional responses for the children can enable this age group to adapt more effectively. Older children rely less on the nuclear family and more on their peers, but the effect of a death will restimulate the adolescent's attachment to their family and may vary depending upon the attachment and ambivalence they feel. The period of greatest risk and opportunity for the family is that of the first year following the death. Although most of the problem behaviors are seen to subside eventually, some may require professional help.

Adaptational Factors

That so much can go wrong, as evidenced in the review of the grief literature, presents a challenge to a family's ability to survive. How well families adapt depends on a number of variables, as indicated above. There is never a good time to experience the death of a close family member, but there are times when the stress of such an event puts the family at a higher risk for dysfunction than others (Walsh & McGoldrick, 1987). When the death coincides with a time in the life cycle when the family is experiencing a number of other concurrent stressors, they may have more difficulty coping and adapting. If there are previous traumatic losses and unresolved mourning, the family will be more vulnerable in

the event of another death (Jordan, 1991-1992; Rosen, 1988-1989; Walsh, 1978). If the deceased member dies at an unexpected time in the life cycle, such as childhood, young adulthood, or during early parenthood, the death may be more difficult for the family to deal with (Neugarten, 1976).

If the role of the deceased was not a significant one in the family, the family will be more likely to adapt (Hare-Mustin, 1979; Herz Brown, 1988; Walsh & McGoldrick, 1991). The family's recovery will also be less problematic if the roles enacted by the deceased can be reallocated to other family members without undue burden (Vess et al., 1985-1986).

Numerous authors have noted that families who have clear direct styles of communication deal better with the crisis of death than those where death is a toxic issue that cannot be openly discussed (Walsh, 1982; Walsh & McGoldrick, 1991). When feelings of sadness and loss as well as anger, guilt, and relief can all be openly shared, the grieving process and the readjustment of the family will be more likely to proceed without undue difficulty (Bowen, 1976; Lamberti & Detmer, 1993; Vollman et al., 1971). Open communication also allows for a better fit in the reallocation of roles that is necessitated after the loss of a family member (Vess et al., 1985-1986). When there are no conflicted or estranged relationships at the time of death, families cope better (Bowen, 1976; Rosen, 1990b; Walsh & McGoldrick, 1991).

If the family has a wide source of social support and a large extended family close by, there is a greater likelihood that they will successfully adapt to the loss of their loved one (Walsh & McGoldrick, 1991). A cohesive but differentiated family will be more likely to offer support and have tolerance and respect for individual differences in the grieving process (Walsh & McGoldrick, 1991).

If the family has a history of being flexible in the face of crises and able to draw from a wide range of healthy coping behaviors and resources, they will be less likely to

experience defeat when a family member dies. They will be more likely to accept the loss and integrate it into their view of the evolution of life (Walsh & McGoldrick, 1991). The more flexible they are, the more likely they will be able to handle the reorganization of the family system that is necessitated because of the loss (Cohen et al., 1977).

Some researchers have found that when death is anticipated as a result of a chronic illness, families cope significantly better than if the death is unexpected (Lindemann, 1944; Neugarten, 1976; Parkes, 1975; Rolland, 1990; Sanders, 1989). However, other researchers have shown that expected death did little to lessen the psychological distress experienced after death (Norris & Murrell, 1987), and illness that required extensive caregiving prior to the death has been shown to be linked with greater bereavement strain (Bass & Bowman, 1990).

Length of time that the illness has been diagnosed is another factor of importance. If the illness has been 3 months to a year in length, the family has sufficient time to anticipate the death but not an excessive amount of time that depletes the family of its caregiving and financial resources (Sanders, 1989; Walsh & McGoldrick, 1991). Grief reactions have reportedly been more intense if the terminal illness has lasted for more than a year (Payne et al., 1980).

The nature of the death is another factor. Suicides cause tremendous pain for the surviving family members as do violent deaths where body deformity or dismemberment have occurred (Vollman et al., 1971; Walsh & McGoldrick, 1991). Deaths with a social stigma attached, such as AIDS, also impact the grieving process (Rosen, 1989; Williams & Stafford, 1991).

Another critical factor in a family's ability to adapt to a loss is their belief system. This may involve ethnic, religious, or philosophical ideas about death and the meaning attached to it and will be very influential in how the family responds to a death of one of its members (Herz Brown, 1988; Walsh & McGoldrick, 1991). Families who have

appropriate rituals and ceremonies to cope with the loss are better able to adjust than families where there is no commemoration to aid the family in the expression of their grief (Bolton & Camp, 1986-87; Imber-Black et al., 1988; Rosen, 1990b).

Walsh and McGoldrick (1987) identified some essential tasks families must negotiate in order to adapt optimally to loss: (a) shared acknowledgement of the reality of death, which is facilitated by open communication within the family; (b) shared experience of the pain of grief, allowing all feelings about the loss--from sadness to anger--to be expressed; (c) reorganization of the family system to compensate for the loss of the role and relationships with the deceased; and (d) reinvestment in other relationships and life pursuits, which often takes 1 to 2 years to accomplish.

Death does not have to be regarded as a tragedy but rather as a challenge and an invitation for adaptive change (Greaves, 1983). It is dangerous to assume that all losses produce debilitating responses or that a certain amount of grief work must be done before one can move on with their life. Some people move from high distress to low; some remain high; and others show no intense distress--all of these reactions are considered normal adaptive processes (Wortman & Silver, 1989).

Family Systems, Stress, and the Life Cycle

Family Systems

The family system is defined as a group of individuals who are interrelated and interconnected so that a change in one person affects the other family members both individually and as a group, which, in turn, impacts the originator of the change. Feedback loops denote that causality is not linear but circular; every action is also a reaction (Guttman, 1991; Walsh, 1982). The family is greater than the sum of its parts and cannot be captured by simply describing each individual within that family. Their differences are equally as important as their similarities and serve to help maintain a stable state, referred to as homeostasis (Guttman, 1991; Walsh, 1982). The patterns of their connections are

governed by the family's relationship rules which may be either implicit or explicit (Walsh, 1982) and are frequently passed on from one generation to the next (Bowen, 1976).

Crises in the family create stress and require the family to adapt in order to preserve the family as a unit along with the well-being of each of its members (Walsh, 1982). In systems thinking, an individual's problem is seen as an expression of an interactional pattern in the family. The symptom may be functional in that it expresses the family tension and stress even though the individual may be impaired in the process. Symptoms are seen to occur most often at times of imbalance or disequilibrium in the system (Steinglass, 1985). How the family responds to the individual in distress will be an important factor in whether or not recovery takes place (Guttman, 1991; Walsh, 1982).

Death involves multiple losses for the family system. One death can mean the loss of a child, a sibling, a parent, a spouse, or a grandparent, depending upon each individual's connection with the deceased. Each of these unique relationships affects the impact of loss on the whole family (Walsh & McGoldrick, 1987).

Family Life Cycle

The family developmental framework is another critical dimension that is added to the interactionist perspective of the family system. The interrelatedness of family members changes over the course of the family's life cycle, as roles and relationships between parents and children evolve with the developmental changes of each of the family's members (Walsh, 1982). The family life cycle is generally defined in developmental stages and is characterized by the major events and developmental tasks the family is facing, especially the addition and departure of family members (Carter & McGoldrick, 1988; Duvall & Miller, 1985; Walsh, 1982). Generally, the major stages are courtship, marriage, advent of young children, adolescence, children leaving home, readjustment of the couple, retirement, growing old, and facing death.

Undergirding assessment is an understanding of what is considered "normative" for families across the life cycle (Carter & McGoldrick, 1988). Normative refers to events and transitions that most families can expect to occur at specified stages of the family life cycle (Walsh, 1982). There are various schemas, but all are primarily geared around the individual developmental stages of offspring (Carter & McGoldrick, 1988; Duvall & Miller, 1985; Olson et al., 1983). More attention has been paid to the child-rearing phases of the family than to the later stages of the family's life. The family life cycle perspective views symptoms in relation to normal functioning over time, with the individual life cycle taking place within the context of the family life cycle (Carter & McGoldrick, 1988).

The various stages of the family life cycle are based on the view that the central underlying process to be negotiated is the expansion, contraction, and realignment of the relationship system to support the entry, exit, and development of family members in a functional way. (Carter & McGoldrick, 1988, p. 13)

Developmental tasks for each stage vary from one theorist to another but are commonly distinguished by the addition and deletion of members through birth, launching, marriage, and death. A change for any member is a challenge for the entire family (Minuchin, 1985). Family developmental tasks differ from individual developmental tasks in their relational qualities. Ireys and Burr (1984) noted both individuating and integrating family tasks for young adults.

As life cycle patterns in our time have made some significant changes with increasing numbers of couples cohabitating, same sex marriages, lower birth rates, an increase in divorces and remarriages, delayed marriages and childbirth, and increases in numbers of single women giving birth without marrying, what is "normal" is becoming more and more mythological (Carter & McGoldrick, 1988). Carter and McGoldrick (1988) have developed additional phases of the family life cycle for divorced and remarried families that are superimposed upon the normal family life cycle to indicate the developmental tasks peculiar to these groups of people.

Family Stress

Family stress research had its beginnings with the work of Hill (1949) who studied the stress of war separation and reunion on families. In an effort to understand why the same stressor affected families differently, Hill (1958) developed a model of family crisis called the ABCX model where A (the stressor event), interacting with B (the family's crisis-meeting resources), interacting with C (the definition the family makes of the event), produces X (the crisis). Attention to family stressors is directed at both normative and nonnormative life events. A stressor is defined as "a situation for which the family has had little or no prior preparation" and crisis as "any sharp or decisive change for which old patterns are inadequate."

Advancing the ABCX model a step further, McCubbin and Patterson (1983) developed the Double ABCX Model of Family Adjustment and Adaptation, incorporating into it the concept of the "pile up" of family life changes. The FILE was developed in order to measure the stress of a family. Life events which are experienced by the family as a whole or by any one member are added together to determine the magnitude of life changes facing the family as a whole. These researchers hypothesize that, as family life changes accumulate, there is a decline in family functioning (McCubbin & Thompson, 1991). Families who are already struggling with other life changes, such as a developmental transition, may lack the resources to cope with any additional stressors (Golan, 1978). A study by Bass and Bowman (1990) showed that the strain of caregiving was associated with an increased use of bereavement services for families after the death of their loved one, which also attests to the "pile up" of strains and stresses.

Most recently, McCubbin and Patterson have further adapted the Double ABCX Model and now have introduced the Resiliency Model of Family Stress, Adjustment and Adaptation, which includes family types and levels of vulnerability in addition to the elements of the Double ABCX Model (McCubbin & Thompson, 1991).

Family Stress and the Life Cycle

David Olson and his associates have studied normal family development across the life cycle (Olson et al., 1983, 1985). Families were studied on several dimensions: family types, family stress, family resources, and marital and family satisfaction. By describing the positive aspects of families that help them cope and deal with stress, the authors established a backdrop against which to contrast families who are having problems coping with specific issues. Their cross-sectional study examined characteristics of 1,140 intact families from across 31 of the 50 United States, representing seven stages of the family life cycle from young couples without children to retired couples. Specific stages of the family life cycle were identified based on the age of the oldest child, the amount of transition or change required in response to changing developmental needs of the family members, and changes in family goal orientation and direction. Family norms were then developed by stage of the family life cycle (Olson et al., 1983).

In assessing family stress, husbands and wives were asked to identify the stressors and strains they had experienced during the past year. These stressors were recorded on the FILE. The top stressors for each stage of the life cycle were calculated. The stress of illnesses and losses of relatives, family members, and close friends appeared to be most closely associated with the latter two stages, the empty-nest and retirement stages of the family life cycle, as might be expected (Olson et al., 1983).

Olson et al. (1985) postulated that families under stress should be viewed along a continuum ranging from extremely high stress to extremely low stress. Eighty-five percent of the families in this study were clustered in the midrange of family stress.

Major differences were found among the various family members and across the stages of the life cycle (Table 1). Those differences can be accounted for by identifying the differing developmental tasks and family structures of each stage and also by describing the cohort differences between younger and older couples (Olson et al., 1985). Stages of the

life cycle that had the highest mean scores on the stress inventory were the launching, adolescent, preschool, and school age stages, respectively. Olson and his associates concluded that stage differences and individual differences should be taken into consideration when carrying out any research project involving families.

Table 1

Comparative Norms for Family Pile-Up over the Family Life Cycle

Family Stage	Weighted Sum Mean	Family Life Spiral Comparability
Couple	478	CF→CP
Preschool	530	CP
School Age	500	CP→CF
Adolescence	545	CF
Launching	635	CF→CP
Empty Nest	425	not comparable
Retirement	395	not comparable

Source: Family assessment inventories for research and practice, 2nd ed., by H. I. McCubbin and A. I. Thompson (Eds.), 1991, p. 93.

Olson (1983) and McCubbin (1991) also noticed differences in families' responses to stressors and strains at various points in the life cycle. Stressors, defined as specific concrete events, were generally less stressful for families than on-going strains, those conditions of an insidious and ongoing nature.

Transition periods in the life cycle have been known to be more difficult times for families, occasions that involve both beginnings and endings, as in births, launching young

adults, retirement, and death. Haley (1973) noted that most periods of family stress occur when someone is entering or leaving the family. All levels of the family system are in greater flux at these times. Because there is a great deal of upheaval, rethinking, and change, families' abilities to adapt are more heavily taxed, and they are, therefore, seen to be more vulnerable to any additional stressor at those points (Rolland, 1990). McCubbin's Double ABCX model is based on the belief that a family already struggling with one major life transition is likely to have difficulty coping with concurrent stressors (McCubbin & Patterson, 1983). Rapaport (1962) states that stressful transitions are turning points for families, leading either to resolution and growth or to maladaptation. Symptomatic families develop problems because they are not able to adjust to or negotiate the transition (Hoffman, 1988; Stanton, 1978).

Haley (1973) noted that pathological behaviors tend to show up in the family life cycle when one generation is prevented or held up in disengaging from another generation. For example, serious illness and death are expected in late adulthood and are considered normative developmental tasks for those stages of the life cycle. However, if those events occur earlier in the life cycle, the event is considered "off-time," and the family lacks the psychosocial preparation that comes later when their cohort is also experiencing similar losses (Herz, 1980; Neugarten, 1976; Rolland, 1990). For example, if a young adult is in the transitional stage of leaving home and a parent is diagnosed with terminal cancer, it may alter the young person's ability to proceed on a normal developmental course, and it will likely be necessary to alter, delay, or give up goals. The young adult will undoubtedly feel torn between his/her own immediate pursuits and premature caretaking obligations (Walsh & McGoldrick, 1987). The whole family is robbed of their expectation of a "normal" life cycle, and the adaptations that will be required of them as a result are greater than had the illness been diagnosed in late adulthood (Rolland, 1990). At transition stages, intense grieving can occur over opportunities that have had to be relinquished, with loss of future

hopes and dreams. This can overwhelm and complicate the tasks of mourning the death of one of their members, making adaptation difficult (Walsh & McGoldrick, 1987). The ability of each family member to adapt, and the rate at which they do, will depend directly on each individual's own developmental stage and their role in the family (Ireys & Burr, 1984; Walsh & McGoldrick, 1987).

Family Life Spiral Model

Early family life cycle theorists developed lineal models of the family life cycle (Carter & McGoldrick, 1988; Duvall & Miller, 1985; Olson et al., 1983). However, families do not ordinarily have a beginning and an end but rather continue on with births of new members and deaths of others, adding generation upon generation. In accordance with the repetitive recycling of the family life cycle stages and developmental tasks, Combrinck-Graham (1983) devised the Family Life Spiral Model (Figure 1). Here the cycles of the individuals in the family are related to each other across three generations (Combrinck-Graham, 1985). The model represents the continuous spiral of family evolution, portrayed in a three-generational span. The spiral is compact at the top to signify periods of family closeness and spread out at the bottom to represent periods of family distance. The compact periods reflect centripetal (CP) tendencies; the spread out periods reflect centrifugal (CF) tendencies.

The integral concept in this model is that of the family's oscillation between CP phases when it is most cohesive (birth, childbearing, and grandparenthood) and CF stages when it is least cohesive (adolescence, the 40s reevaluation, and retirement). These terms are borrowed from physics to describe the presence of opposite forces at work in propelling developmental change in families; one force predominates at one stage of development, while the other force predominates at the opposite stage. When a family is at a CP phase in the life spiral, they are primarily looking for gratification from within the family and the external boundary around the family restricts influence from the outside. At

CF phases, families are looking for gratification outside the family unit, and the family's external boundary is relaxed in order to facilitate achievement of associated developmental tasks (Beavers, 1982).

The use of the terms centrifugal and centripetal to describe family behavior is not original with Combrinck-Graham's Family Life Spiral Model. Erikson (1963) used the concepts in describing differences between two Indian tribes, the Sioux and the Yurok, in the 1920s. Stierlin (1973) and associates (Stierlin, Levi, & Savard, 1972), in researching adolescent runaways, discussed patterns of CF versus CP separation in adolescents and the implication of these patterns for understanding runaway youth. The CP families were described as having tight external boundaries, with families geared to meeting one another's needs within the confines of the family. Excessive CP relationship styles often are smothering to adolescents who are developmentally driven to differentiate from their family members. An overinvolved parent and a "sick," detached, or destructive child are often examples of these extreme CP styles. On the other hand, given a lack of clear external boundaries and promoting a CF relationship style too soon leads to pushing the adolescent out into the world prematurely. These patterns are more often evident in cases of parental rejection and neglect (Stierlin et al., 1972). The forces of CP and CF are generally functional for families but become dysfunctional when they are inappropriately timed or excessively intense (Stierlin, 1972). When runaways fail, the assumption is that the family uses CP and binding styles which block the adolescent's separation. When runaways succeed, CF styles are assumed to be present in the families, and the use of expelling dynamics pushes the adolescent out into premature autonomy (Stierlin, 1973).

The Timberlawn study of healthy families (Lewis et al., 1976) also used the CP/CF concepts. The researchers initiated the development of a model of family patterns and processes which correlates with the functioning capacities of offspring (Beavers, 1982; Beavers & Hampson, 1990). In the Beavers Systems Model one continuum describes five

levels of family functioning: optimal, adequate, midrange, borderline, and severely disturbed. The other continuum describes the family relationship style from CP to CF; the extremes of CP and CF are associated with severely disturbed families, whereas the most competent families avoid either extreme, tending to display a mix of CF and CP along the developmental life cycle, more CP in the early years and more CF as the children approach adolescence. Beavers' (1982) research indicated that there was a correlation between the relationship style (CP or CF) and the kind of psychopathology found in the family. A family whose predominant force is CP and who has not shifted its boundaries as children approach adolescence is likely to experience dysfunction. Conversely, it is difficult to effectively parent very young children with a CF relationship style because of the lack of clear external boundaries and structure. At the extremes, CP families bind children and make leaving difficult; CF families expel children before their individuation is complete. Differences were also noted in the way CP and CF families handle ambivalent feelings (Beavers, 1982). The CP families will try to repress or deny negative feelings and emphasize the positive ones which serve as the glue for the CP style and are more comfortable with negative or angry feelings which provide the force for outward movement.

Upon examining the Family Life Spiral Model, it is noted that each spiral in the model represents approximately 25 years, for example, from birth to childbearing is one full cycle. At each new CP period, the generations change roles and status (Combrinck-Graham, 1985). Moving back and forth between these two opposite styles allows family members several opportunities to gain increasing mastery over the issues of intimacy inherent in the CP stages and individuation in the CF stages (Combrinck-Graham, 1983). For an individual whose life spans three generations, there will be three periods of CP family life and three of CF family life in which to master the challenges of intimacy and individuation.

The transgenerational coming together and internal focus of the family at CP phases is in evidence as family members organize around the event of a new birth in the family. When a new generation has been added, the roles of the older generation are altered: The childless couple are now parents; the couple's parents are now grandparents; sisters and brothers are now aunts and uncles. All are in the process of learning new roles because of the arrival of this new child. Bonding and attachment become the focus of relationships in the family with the infant, emphasizing nurturing and caretaking (Combrinck-Graham, 1985, 1990). Family members, especially grandparents, come to see the new baby and help out in the adjustment phase. Mother and father rework their schedules around the baby's needs, and, for an extended period of time, life revolves around this new arrival. The creation of a new "family" generates a tightening of the external boundaries of the family unit and a relaxing of the interpersonal boundaries within the family to allow for assimilation of this new arrival into the family system, to promote teamwork within the family, and to provide the context most suitable for an infant's early development (Combrinck-Graham, 1983).

Over the next 12 to 18 years the family changes to allow for the individuation of this child by relaxing its external boundaries and shifting to a more CF relationship style. The family develops patterns of relating that allow for differentiation and disengagement of all the members (Combrinck-Graham, 1985). Outsiders are allowed into the family more and more, and family members venturing out of the family gain a new perspective about their own family. As children individuate, parents are freed to pursue their personal development a little more, slowly modifying their family structure in response to greater exposure to social forces. At the same time, grandparents, too, are redefining their relationships with the larger society, with extracurricular activities occupying more of their time (Combrinck-Graham, 1983).

As families enter into the CF stages of the family life cycle (adolescence, 40s reevaluation, and retirement), the distance between family members is at its greatest; the external boundary of the family is very diffuse; and family members are generally looking for satisfaction outside the family unit. Family members are working on issues that emphasize personal identity and autonomy, learning to differentiate and individuate from the family system. Adolescence is the most CF period in the family life cycle, illustrated by their normal interest in their peers and their adoption of role models other than their parents (Combrinck-Graham, 1988). The stage of adolescence is noted for being one of the most stressful phases of the family life cycle, with boundaries, functioning, and alliances being very fluid and generating reverberations throughout generations of the family (Ravenscroft, 1974).

When all the children have reached this point and left home, there is another period of reassessment with parents renegotiating their marriages, careers, and life directions, and grandparents shifting gears into retirement. When the launched children begin to marry and form their own family units, the family is beginning another shift towards a more CP system, negotiating peer-like relationships between newlyweds and parents and the reforming of structures conducive for the CP period of childbearing. Older generations may be brought closer to their children through infirmity or because they simply have more time after retirement (Combrinck-Graham, 1983, 1985).

Exceptions to the model. The Family Life Spiral Model illustrates intergenerational family relationship patterns as the "normal" three-generational family moves through the life cycle. When generations are separated by about 25 years, the CP and/or CF movement of the system applies to all the generations simultaneously. However, complications appear when the CP family members of the newborn's family do not fit the normative expectations. For example, the parents are single or not married; the parents are adolescent; the parents are much older than usual for parenting; the parents are significantly different in

age; the parent(s) has abandoned the child to be raised by grandparents; or the parents are a remarried family (Combrinck-Graham, 1983, 1985).

A different kind of challenge is presented in a family with many children, from young adults to newborns. These families must continue the process of allowing the differentiation of the young adults while still providing clear structure and boundaries for the younger child(ren). Many times these families remain in prolonged CP states, and young adults achieve some of their CF differentiation by participating in the care of younger children.

An even greater complexity is added by remarried families and blended families. One spouse may have children at a CF stage; the other spouse's children may be at a CP→CF stage; and the newly blended family may choose to have a child of their own, necessitating a CP relationship style (Combrinck-Graham, 1983, 1985). The stress on this blended family would be expectedly high and the demands for flexibility enormous. As Carter and McGoldrick have written (1988), these families have their own separate set of developmental tasks imposed upon the normal family life cycle.

Relationship between model and impact of death. Combrinck-Graham (1985) discussed the developmental misfit that can occur when a family system does not change to become more CP or more CF as the stage of the family life cycle requires. Numerous theorists have suggested that symptoms in a family are often signs of developmental misfit (Carter & McGoldrick, 1988; Haley, 1980; Stierlin, 1972, 1973; Stierlin, Levi, & Savard, 1972). If a family is at the stage of adolescence but is predominantly using CP relationship styles, one would expect to see symptomatic behavior and thus a higher level of stress in the family's interactions.

Combrinck-Graham (1983) discussed the impact of death on families at both CF and CP periods in the life spiral. Although Combrinck-Graham originally hypothesized that death might have a more severe impact on families that were not at a CF period since

death was seen as a departure, she also noted that death has the effect of bringing family members together, especially if there is a chronic illness preceding the death that necessitates family members serving as caregivers. Members come to participate in funeral and mourning rituals, and initial grieving is done in the company of other family members.

Rolland (1987a, 1987b, 1988a) offered a conceptual framework for the interweaving of the family life cycle and the concepts of CF and CP with chronic and life-threatening illnesses. He hypothesized that chronic illness exerts a CP pull on the family system. In much the same way that birth of a new family member propels family members inward, so does chronic illness. The symptoms, loss of function, shifting roles, and the fear of death all cause the family to refocus inwardly (Rolland, 1987a). If the illness coincides with a CF period for the family, for example, as young adults are launched, it may cause more problems because it is contrary to the momentum set in motion by the normal progression of the developmental life cycle. Giving up the pursuit of a new life structure is more difficult once that process has been initiated than if the plans for such have not been made or are only in the preliminary, less formulated stages (Rolland, 1987a). Every family member's autonomy and individuation are affected. The severity of the disease and the family's dynamics will influence whether their return to a CP structure is temporary or a permanent involuntal shift. For more fused families who face autonomy with a bit of caution, the chronic illness may provide a good rationale for returning to, or staying at, a CP period. This may merely prolong this period, or, at the worst, the family may become permanently stuck with no one able to leave home or move on with their developmental tasks (Detmer & Lamberti, 1991). The risk is that there may be a tendency for the CP pull of the illness and the CP stage of the family to amplify one another, creating overt family dysfunction.

The tendency of a disease to interact centripetally with a family grows stronger as the disease becomes more incapacitating or as the risk of death increases (Rolland, 1987a).

Progressive diseases are more CP in terms of their effect on families than are constant-course illnesses. With constant-course illnesses, a family may be permitted to enter or resume a more CF phase once the family has adapted to their roles in regard to the illness.

The terminal phase of an illness forces most families back into a CP mode. Thus, they are out of phase with families in, or in transition toward, a more CF period, and, therefore, this phase will be more disruptive in terms of family development. Coping with chronic illness and death are considered normative tasks in late adulthood. If they occur earlier, they will produce more stress in the individual and the family (Rolland, 1987a, 1987b).

Lewis (1986) noted that most individuals live with some type of balance between separateness and attachment. There are periods when individuals are more intensely connected to another person(s) and periods in which the individual is more detached from others. Affective arousal is more apt to be associated with periods of attachment, and a more cognitive orientation prevails during periods of separation. Many people move back and forth between separateness and attachment; others seem to remain relatively fixed with either separateness or attachment dominant. Lewis sees well-functioning families as allowing both. Stress, he says, arises when individual family members' needs for separateness and attachment occur at different times.

Later, Lewis (1989) theorized that if family members have too much connectedness or too little connectedness, they may not be able to respond to developmental challenges with appropriate increases in CF or CP styles. Thus, if death were a CP force, as Rolland hypothesized, it would be hardest for CF families to respond appropriately. Taking an epigenetic approach which involves the idea that successful negotiation of developmental transitions are dependent upon successful completion of earlier transitions, Lewis (1988) suggested that how a family responds to structural changes demanded of them depends on

the level of family competence during the preceding stable period. He concluded that the relationship between family transitions to development of symptomatic states may be different at different transition points.

Rosen (1990a) has written that at every stage of the family life cycle both CF and CP forces are at work, although one tends to dominate. Regardless of where the family is in the life cycle, crises produce a powerful CP force. This may aid the family in managing the crisis, but it may also have the effect of closing the family's external boundary so rigidly that they are prevented from receiving help from outside sources. The CP effect of the crisis may make it difficult for the family to proceed with future developmental tasks. Centripetal families may find their development arrested or regressing symptomatically; CF families may put their individuating tasks on hold and move in closer, causing violation of family boundaries as individuals in overlapping life cycle stages each try to play significant roles. The problems that poses for a family are documented in a paper by Britton and Zarski (1989) which points out the CP pull of a family member with AIDS on a family at a CF stage in the life cycle.

Rosen (1990b) has observed that there are fundamental differences in the ways death will impact families at varying stages of the family life cycle. Because of the difference in developmental tasks at the various stages of the life cycle, some focused more on disengagement and leaving, others on consolidation and drawing together, the family's ability to adapt to the loss is correlated with their developmental stage. At CF stages such as adolescence and young adulthood, the terminal illness and imminent death may be an impediment to the developmental task of leaving home or may create such despair about the past that the family refuses to continue with life's tasks. A loss at CP stages, such as newly married couples, families with young children, or families who have launched their children, may create a developmental arrest in the family process. The couple may tighten the external boundary on their family so much in an effort to protect their children that

developmentally the family is kept from moving towards a more CF style as the children grow and mature.

When families are in the process of reorganizing after a loss, family boundaries may remain ambiguous or change in response to the stress the family has experienced. Boss (1980) proposed that the greater the boundary ambiguity after a stressor event, the higher the family and individual ambiguity. Failing to delineate the boundaries clearly serves to keep the family's stress at a high level, blocking them from reorganizing and developing new styles of functioning.

Predictions

Walsh and McGoldrick (1991) have noted the lack of research on the differential impact of death at various stages of the family life cycle and for the family as a unit. "Even when the importance of a particular death has been noted, our theory has lacked a framework for understanding the devastating impact certain losses can have on family processes and has made little sense of the ongoing problems that may follow from a family's inability to mourn its losses" (Walsh & McGoldrick, 1991, p. xvi). Insufficient attention has been given to the immediate and long-term effects on siblings, grandparents, and other extended family members when loss of an immediate family member occurs (Walsh & McGoldrick, 1987).

How a family responds to stressful life events such as death appears to depend then in part on the family's position in the family life cycle. The probability of a family experiencing the death of one of its members increases as the family moves farther along in the life cycle. As Olson et al. (1983) noted in their study of normal families across the life cycle, a family's stress level peaks at adolescence and the launching of children and then declines significantly (Table 1). Although Olson's stages of the family life cycle do not coincide perfectly with those of the Family Life Spiral Model, the stress levels of families at those stages are congruent with the theoretical literature about family stress and the family

life spiral stages. It is impossible to compare the later stages of Olson's family life cycle with the Family Life Spiral Model. He has reduced Combrinck-Graham's four stages of grandparenthood, planning for retirement, retirement, and late adulthood to two--empty nest and retirement. However, if death occurs late in the life cycle, as in late adulthood, even though it is more of an expected event and the family can be expected to cope more successfully because it is "on time," it does coincide with the one point in the family life cycle where family stress is the highest for the younger generations, that of launching. Perhaps the declining health and death of one of their older members is a factor contributing to the high stress associated with this stage.

Whether or not death is a universal stressor causing a similar amount of added stress at each level of the life cycle is unknown. Given the magnifying effects of the pile up of stressors, one might expect that a death at the launching stage and, therefore, in the CF→CP phase would produce far greater stress on the family system than a death at the couple stage, if Olson's study of normal families gives us any clues. Lewis's (1986) hypotheses about stress arising when individual family members' needs for separateness and attachment occur simultaneously would correlate with the theory proposed here that death creates a need for attachment in families, and if that occurs at a time when members are developmentally separated, there would be higher levels of stress and symptomatology. However, if death has a CP pull, as Rolland (1987a, 1987b, 1988a) suggested, then one would expect that it may produce more stress on the family who is CF.

Other Variables Impacting Death that May be Expected to Vary by Life Cycle Phase

Several other variables that affect how a family might be impacted by the death of one of its members could be expected to vary throughout the course of the family life cycle as families oscillate back and forth between CF and CP phases. Those variables are social support, cohesion, adaptability, and communication.

Social Support

Given what has been documented about the differences in family relationship styles depending upon their CF or CP phase in the family life cycle, one might expect that there would be a greater utilization of external supports by CF families since their orientation is outward, implying a greater reliance on and trust in relationships and resources outside the family in order to meet developmental tasks. The CP families might be expected to rely more on internal supports from the family itself given their inward orientation and tendency to have tight external boundaries and more trust in family members than in outside resources. No definitive answer is available from the literature, but some hypotheses may be generated.

In the family stress literature, social support is an oft-cited resource for family adaptation. Cobb (1976) defined social support as information exchanged at the interpersonal level which provides (a) emotional support, leading the individual to believe that they are cared for and loved; (b) esteem support, leading the individual to believe they are esteemed and valued; and (c) network support, leading the individual to believe they belong to a network of communication involving mutual obligation and mutual understanding. McCubbin and Thompson (1991) added two other forms of support under social support: (a) appraisal support, which is information in the form of feedback allowing the individual to assess how well they are doing with life's tasks, and (b) altruistic support, which is information received in the form of good will from others for having given something of oneself. Social support may include support from family members or from friends, neighbors, work associates, social or church groups, or health care providers.

The social support families are able to mobilize when facing a chronic illness is believed to be critical in how a family adapts (Ireys & Burr, 1984) and is assumed to be the case when the chronic illness becomes terminal and death ensues. Those with a large

extended family from whom to draw support tended to get on with life after suffering a death of one of their members as opposed to members who each had their own separate circle of friends from whom they derived most of their support (Ellard, 1974). In some cases, families reported that support from immediate family members was most beneficial to them in coping with the death and that various institutional resources such as the church were not seen as helpful (Weber & Fournier, 1985). Others reported that the bereaved families who heal satisfactorily report access to and use of an extended support network--family, friends, neighbors, religion, family cohesion, and involvement outside the family system (Valeriote & Fine, 1987).

In a research study of parents who experienced the death of an infant, bereavement was much more difficult because of the lack of societal and family support (Helmrich & Steinitz, 1978). There was a "conspiracy of silence" by family and friends that produced immediate distress and feelings of extreme isolation in the parents. In another study of families who had experienced the death of a child due to cancer, those who were found to be coping well had utilized a variety of resources, including friends, community agencies, hospital and support teams, and each other. They felt free to ask for help or reject unwanted offers. Families who were not coping as well were unable to seek support from anyone (Davies, Spinetta, Martinson, McClowry, & Kulenkamp, 1986). Older parents' reactions to the death of their adult child were hypothesized to be contingent largely upon the formal and informal social support the elder parents could access. Supports outside the family are generally quite minimal for the elderly, and so much of the support is left up to the remaining family members (Brubaker, 1985).

Elizur and Kaffman (1983) conducted a longitudinal study of children in Israel who lost their fathers and concluded that half of the children exhibited intense emotional disturbance. Their findings suggested that predeath family and environmental factors are significant determinants of bereavement outcome. Children at low risk had mothers who

enlisted aid from the community whenever necessary; thus, external social support was seen as an important variable.

In a research study of bereaved widows, the type of support needed and found to be utilized varied depending on the phase of the grief process. New widows needed the nurturance and dependence that was best met by family members, but as they began to put their lives back together, there was significantly more involvement with peers. A very close-knit kin network was seen to impede that process, perhaps encouraging dependency (Bankoff, 1983). The CP families would be more likely to be defined as a close-knit kin network.

Bass et al. (1990) compared participation in social activities between bereaved spouses and bereaved adult children and found the former group increased their participation in outside activities such as going to dinner, shows, concerts, or the theater more so than the latter group. This is understandable in terms of the bereaved spouse feeling more compelled to reorganize social ties than an adult child whose associations and daily routines are not generally contingent upon the parent's involvement. Bereaved spouses had significantly larger networks of support than bereaved adult children. No differences between relative support or paid or professional helpers were noted, but there was a significant difference between use of friends and neighbors. This is corroborated by Lund et al. (1990) who found familial support remaining steady for bereaved spouses but dramatic increases in associations with peers.

In a longitudinal study of stress and illness, Cronkite and Moos (1984) found that the use of avoidance-coping strategies among women was associated with higher stress and lower family support. Similar findings by Holahan and Moos (1985, 1986) indicated that women who were experiencing high stress but low symptomatology had better family support than those with high stress and high symptomatology. A 1-year follow-up also demonstrated a strong negative correlation between the high stress/low symptomatology

(better family support) group and the emotional and physical distress in both men and women. Their conclusions were that the availability of family support serves to protect individuals from negative psychological consequences of stress, more so for women than men. Developing an expanded support network may be particularly beneficial to women facing bereavement (Holahan & Moos, 1986).

Rando (1984) noted how critical social support is for people in bereavement, not that it is just available but that it is utilized as time goes on. She indicates that it is common for griever not to utilize support that is offered and to isolate themselves despite the availability of support.

Rosen (1990a) has noted instances where the absence of social support in bereavement affects the family's ability to mourn its loss. Those instances are perinatal death, the loss of a newborn in the first few weeks of life, and an AIDS-related death. In the latter instance, the social stigma is such that AIDS survivors experience "disenfranchised grief." They do not feel entitled to grieve publicly or ask for help in working through that grief and, thus, are alienated from the support needed to resolve their grief (Rosen, 1989; Williams & Stafford, 1991). Death by suicide also brings with it a social stigma that can produce a conspiracy of silence between the family and their support network (Bolton, 1984; Brown, 1988; Imber-Black, 1991).

The nature of terminal illness and death is such that it often isolates families from external support networks such as friends, work, and church. As the CP pull of the illness and death increases, the family becomes more isolated and closed. Cohen et al. (1977) found that families who were able to communicate with one another in a free flow of information were more likely to utilize internal support systems (primarily the family structure) than were their counterparts. Postdeath restabilization was positively correlated with the effective use of external support systems such as agencies, institutions, and individuals outside the nuclear family and also with the family's classification as CP.

In another study, it was found that parents and siblings of children who died experienced less psychopathology postdeath when they cared for their children at home and had good family support (Mulhern, Lauer, & Hoffmann, 1983). There was a significant difference between the home care and nonhome care groups in their preference for social isolation, with the nonhome care group scoring higher in social isolation. This suggests that families who utilized family support also utilized social support, which is in accordance with the research of Cohen et al. (1977) that indicated CP families actually made more effective use of external support systems than CF families. This is one of two pieces of literature in the social support field that incorporates the concepts of CF and CP. Olson's study of normal families across the life cycle (Olson et al., 1983) is another and did show that there was a positive correlation between low stress families in the childbearing/childrearing stages (CP) and their use of social support. These findings are contrary, however, to the constructs of the Family Life Spiral Model and the descriptions of CP families which suggest that their external boundaries are tight so as to filter that outside influence more selectively.

Clearly, social and familial support are important factors in how a family copes with the stress of death of one of its members at some stages of the family life cycle. Whether there are significant differences in a family's use of one or the other of those support systems, depending upon their stage of the life cycle when dealing with the stressor of death of a family member, is unknown.

Cohesion and Adaptability

The relationship between family cohesion and adaptability and a family's ability to cope with death has been described and documented in the writings of Walsh and McGoldrick (1991). How these variables might interface with the variations of family relationship styles when they are at CF or CP phases of the family life spiral is unknown.

Cohesion is defined as the degree of separation or connection between family members and primarily concerns the emotional bonding members have with one another (Olson et al., 1985). It might be reasonable to expect that families would score higher on cohesion at CP phases than at CF phases, given the inward focus and orientation of CP phases.

Adaptability is the extent to which the family system is flexible and able to change its power structure, roles, and relationship rules in response to situational and developmental stress (Olson et al., 1985). The role realignments and reorganization that are necessitated after a loss are often immense, perhaps especially so the earlier in the family's life cycle the death occurs. Families who functioned well after the loss of a child due to cancer were open, flexible, and adaptive in response to the death (Davies et al., 1986), as opposed to less functional families who were unable or unwilling to make changes to take them past their sadness.

Olson (1988) noted the variation in family cohesion across the life cycle in his study of normal families (Figure 3). Cohesion remained essentially the same from young couples without children through families with children ages 6 to 12. At that point, cohesion steadily declined, reaching its lowest point when families were at the launching stage and rising again until retirement when it leveled off, indicating it was a resource utilized more in the early and late stages of the family life cycle rather than at adolescence and launching.

If this segment of the family life cycle is superimposed on the Family Life Spiral, one can begin to see the oscillations between levels of cohesion throughout the life cycle, not just the one dip that is shown in Olson's graph which would represent one of the three life cycle oscillations in the Family Life Spiral. Olson begins the life cycle with the newly formed couple, eliminating birth, childhood, and adolescence, and flattens the life cycle past launching which obscures any patterns that may exist. If levels of cohesion are indeed

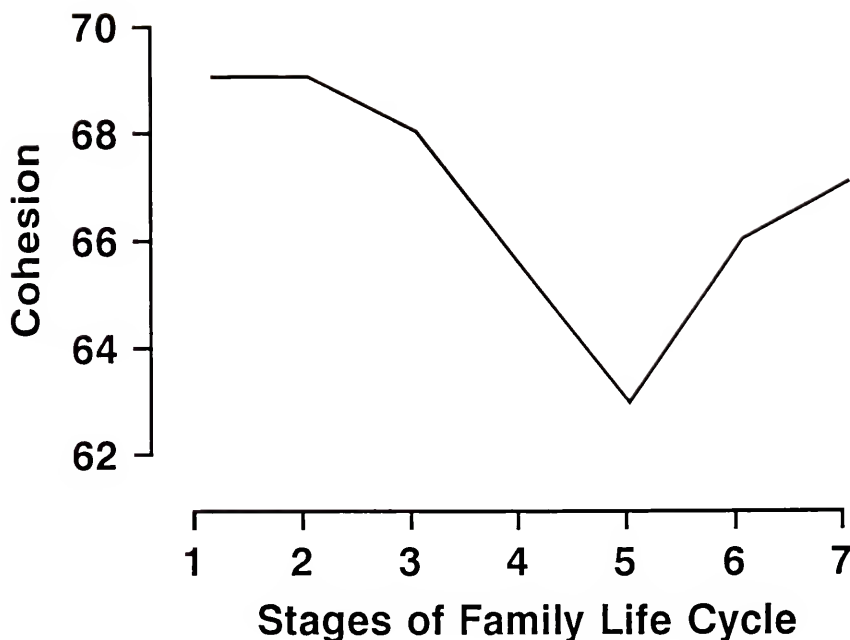


Figure 3. Cohesion in Normal Families Across the Life Cycle

Source: Families: What makes them work, D. H. Olson et al., 1983, p. 83.

Note: 1=Young Couples without Children
2=Childbearing Families and Families with Children in the Preschool Years
3=Families with School Age Children
4=Families with Adolescents in the Home
5=Launching Families
6=Empty Nest Families
7=Families in Retirement

related to CF and CP relationship styles, then one may very well expect differences in cohesion in accordance with the oscillations of the Family Life Spiral.

The differences in family adaptability paralleled the pattern seen with the cohesion scale although the differences were not as pronounced (Olson, 1988). Scores on family adaptability progressively decreased from the newly married couple through adolescence and then increased again after the launching stage.

A pilot study (Jordan, 1991) of the relationship between cumulative loss from four generations, current stress, and the family's current functioning provides findings that correlate with Olson's (1988) study. Families studied were those with an adolescent or young adult in the launching phase. Relationships were found between past stressors, number of deaths, especially premature deaths, and the family's levels of cohesion and adaptability. Families with higher levels of past stressors and numbers of death had significantly lower levels of cohesion and adaptability. How much of the variance is due to the stage of the family life cycle is unknown since the sample focused on the adolescent and launching phases. The results do add support for the hypothesis that CP families would score higher than CF families on adaptability as well as cohesion.

In Olson's Circumplex Model of the family system, families are categorized according to both their cohesion and adaptability scores. Depending upon their degree of connection and flexibility, they fall into 16 different subtypes, combining their scores on each continuum. The linear scoring for each of the scales with cutoff scores is in Appendix I. That there may be a relationship between these subtypes and the effects of stress was shown in a later study by Olson and Stewart (1991). Their research results indicated that these subtypes explained some of the differences in the family's response to stressful life events. "Flexibly connected" families were more vulnerable to the accumulation of stressful events; "structurally separated" families seemed to more affected by transitional changes. "Flexibly separated" and "structurally connected" families were affected by both

stressful events and transitions. Thus, it is suggested that the effect on families of life events and transitions is influenced by cohesion in conjunction with adaptability.

Communication

Olson (1989) defined positive communication skills as sending clear and congruent messages, empathy, supportive statements, and effective problem-solving skills. Negative communication skills include sending incongruent and disqualifying messages, lack of empathy, nonsupportive (negative) statements, poor problem-solving skills, and paradoxical and double-binding messages. In Olson's Circumplex Model, parents from balanced families tended to have more positive communication skills than extreme families which was corroborated in a research study by Rodick et al. (1986).

When a family member has died, the emotional intensity in the family system can be expected to rise significantly above normal. The ability of family members to stay nonreactive while thoughts and feelings are exchanged between them is an important factor in the family's long-term adjustment to their loss (Brown, 1988; Rando, 1984; Rosen, 1987). The more families have been able to share their thoughts and feelings prior to the death, the more likely they are to remain nonreactive when the death occurs (Sanders, 1989). The longer and more intense the stress, however, the more difficult it is for the family relationships to remain open (Herz, 1980). Sanders (1989) writes that remaining open is perhaps one of the most important tasks families can learn to do in order to prevent misunderstandings arising at the time of death. Families who have good open internal communication systems are more likely to discuss the death and plan for the reorganization of the family.

How permissible it is to express a full range of feelings, from positive to negative, from sadness to anger, or guilt and relief, plays a significant role in how well a family readjusts (Lamberti & Detmer, 1993; Vollman et al., 1971). A family that responds with love and compassion but never with anger, sadness, or joy would be constricted and not as

apt to adjust effectively (Epstein, Bishop, & Levin, 1978). Black and Urbanowicz (1987) found that in families where one of the parents had died, avoidance of talking about the dead parent was associated with poorer outcome at 1-year follow up. By 2 years there was no significant difference.

The openness that allows family members to grieve together and review and mourn the lost relationship facilitates mutual comfort and consolation from one another, often pulling the family closer together than they were before (Sanders, 1989), and helping to insure that the grieving will not become blocked or unresolved (Paul & Grosser, 1965; Raphael, 1983). Open communication also is a factor in how well the family renegotiates their roles in a manner that fits with the capabilities of family members (Vess et al., 1985-1986).

Cohen et al. (1977) researched the postdeath adaptation of families of cancer patients in a longitudinal study. They found that, in addition to the family's stage in the life cycle, how well family members communicated with one another, sharing information and decision-making, correlated with their postdeath adjustment. Families rated open in their communication were more flexible about changing roles and had better quality of family relations postdeath. A significant finding is that the wife-mother was often found to have the role of family communicator, and when she was the deceased, a family's readjustment was significantly jeopardized, pointing out that alternate channels of communication need to be opened up prior to the death of patients who hold those roles in families.

Because of their inability to communicate openly, parents who have lost a child often shut themselves off from one another (Schwab, 1992). Grief work is often highly private and intense, and the desire to not stir up their spouse's emotions by talking about the child who has died contributes to that cutoff in communication. In a study by Davies et al. (1986), one of the characteristics of families who coped well with the loss of a child due to cancer was their openness. There was free discussion about the child's death and each

member's response to that. Disagreement was allowed and served as an opportunity for clarification. Closed families spoke for one another, and although there was a lot of talk, it was diverted away from discussion about the deceased child.

When a family member dies, the pain that the survivors experience can be difficult to verbalize which may lead to an increasing sense of loneliness and isolation as communication dwindles (Fleming & Adolph, 1986). A closed communication structure may produce members who do not know how to talk about their feelings, and they, therefore, keep their grief to themselves, restricting the grieving process (Vess et al., 1985-1986). On the other hand, they may know how but feel it is important to protect others by coping with their grief alone, which separates family members from one another and builds barriers to the grieving process (Ireys & Burr, 1984). Families with closed communication styles may present a good front to outsiders yet not be open with one another; there is a "conspiracy of silence" which becomes nonadaptive, preventing social support as well as intrafamilial support (Rosen, 1987; Sanders, 1989).

Lewis et al. (1976) carried out a research study on the openness with which families dealt with the theme of loss. They found a correlation between the families' verbal responses to a video simulation of a family death and their ability to discuss their reactions, and the amount of physical illness the families recorded over the ensuing 6-month period. Families who were able to discuss death in a personal way, as opposed to impersonally or avoiding the topic altogether, had a significantly greater number of days in which family members were all well.

Another factor blocking communication after a death in the family is that family members each will grieve in their own way and at their own pace. Frustration builds as the awareness of differences increases, making family members unable to be of support to one another. In a study by Feeley and Gottlieb (1988-89), there was a correlation between parents' coping and communication following the death of their infant. The mothers in

couples who had more discordant ways of coping with the death perceived higher levels of aversive communication (hostility and conflict) with their spouse. Mothers who had difficulty discussing the event with their spouse reported more intense mourning. Women who reported improved marital communication reported fewer bereavement symptoms.

Helmrath and Steinitz (1978) conducted a study of parent couples who had experienced the death of their infant and noted differences between fathers who were able to be distracted from the grieving process while they were out of the home at work for 8 to 10 hours a day and the mothers who remained at home surrounded by their feelings and thoughts of grief with no one with whom to share them. Having anguish unloaded on them by their wives when they returned home from work became more and more problematic, creating more distance between the couples because of their inability to understand the differences in their feelings. When the lines of communication were opened between them, grief resolution began to occur.

Parents who were very close to their adult children and had good communication with them during the illness preceding their child's death reported less guilt and unfinished business with their child at the time of death (Shanfield et al., 1984). Children from families where the communication is open between parent and child cope much better with death-related experiences and will be more likely to receive the necessary emotional support (Weber & Fournier, 1985). In a study of adolescent reactions to parental death, despite open discussion of parental illness and impending death, communication patterns reportedly changed between the surviving parent and the adolescent after the death (Berman, Cragg, & Kuenzig, 1988). Conversation decreased due to reluctance to discuss their feelings and a sense of needing to protect the surviving parent. Instead, the adolescent talked with siblings and friends about their feelings. Mothers of children at low risk for poor adjustment to the death of their fathers were found to promote open and clear communication and free expression of feelings (Elizur & Kaffman, 1983). Young adult

drug addicts had experienced more deaths of immediate family members than a normal sample and perceived their families as discussing death and dying less frequently (Coleman et al., 1986). The authors surmised that the family environment that minimized the impact of death and avoided discussing death-related issues was related to the subsequent substance abuse of the young adult.

Walsh and McGoldrick (1987, 1991) emphasized the importance of clear information and open communication about the death as one of the essential tasks in the family's adaptation to loss, especially in the activities denoting the death, such as the funeral and graveside services. When there is an attempt to protect children or vulnerable members from those experiences, the grief process is apt to become blocked. The inability to accept the reality of death may ensue and often is a contributing factor to cutoffs, conflicts, and barriers being erected between family members. Secrets, myths, and taboos surrounding the death make it difficult for the family to resolve the loss and "the unspeakable is more likely to be expressed in dysfunctional symptoms or destructive behavior" (Walsh & McGoldrick, 1991, p. 17). Walsh's research (1982) on well-functioning families presented evidence that clear, direct communication facilitates the family's adaptation and strengthens the family as an internal support network.

Rosen (1987, 1990a) also discussed the importance of the openness of the family system in terms of its ability to permit communication on any subject without fear of being censured or rejected. In an open family, members are free to express their thoughts and emotions; closed families discourage and invalidate ideas or feelings that are deemed unacceptable.

Rosen (1990a) has written that where families fall on the open and closed communication continuum is directly related to family boundaries in general. Those families with rigid external boundaries can be expected to have more closed communication styles; families that have open communication also have more open and fluid external

boundaries. Thus, in terms of CP and CF, it might be expected that families who are CP will have more closed communication styles, and CF families will have more open communication styles. Olson's study (Olson et al., 1983) of normal families across the life cycle indicated that low stress was positively correlated with good communication at all stages of the family life cycle, except at empty nest and retirement, suggesting that those are resources that are underutilized at those stages. The associations of this variable then seem to be in contrast with previous predictions about which phases of the family life spiral, CP or CF, are apt to have the greatest difficulty in adapting to a loss. If CF families are suspected to have a more difficult time, but have more open communication styles which are related to positive outcome, then their adaptation would clearly be positively affected by that variable but negatively affected by cohesion and social support.

Conclusion

A family's position in the family developmental life cycle has long been a key factor to consider in making an assessment of families. It is believed to be a significant determinant of normative stressors as families undertake the series of developmental tasks that are necessary to negotiate the entry and exit of family members over the course of time. Previous researchers have delineated some of the normative stressors that are associated with various stages of the normal family life cycle (Olson et al., 1983). Family therapy theorists and researchers have postulated that timing in the life cycle is a key variable in determining the impact of death on families but no definitive empirical research has been done to test those theories (Brown, 1988; Combrinck-Graham, 1983, 1985; Herz, 1980; Herz Brown, 1988; Rolland, 1987a, 1988b, 1990; Rosen, 1990a, 1990b; Walsh & McGoldrick, 1991).

Loss of a loved one is one of the most stressful events families face. As families in recent generations have had more limited exposure to the death and dying process, many have not acquired the adaptive skills that help them effectively adjust to the many changes

that are necessitated when one of their members dies. Quite often one or more of the family members will present to mental health professionals for help in dealing with symptomatic behavior that is associated with a death in the family. As a profession, mental health practitioners must be aware of the variables that impact how a family is affected by the loss and be able to assess what the family needs in order to move on in the developmental process. If families can be identified as being at higher risk for problematic coping with a death, counselors and agencies working with patients and families facing death may be able to design interventions more effectively which prevent further trauma to the family unit and promote appropriate healing for all involved. Numerous variables have been postulated in the literature: timing in the life cycle, role of the deceased in the family, openness of communication in the family, use of appropriate rituals to commemorate the loss, nature of relationship with the deceased (conflicted, estranged, or harmonious), social support, flexibility in adapting to change, cohesiveness of the family unit, whether death is expected or unexpected, length of illness, nature of the death (murder, suicide, chronic illness, AIDS), religious beliefs, and ethnicity. Very few definitive studies exist, however, testing these hypotheses.

This study measured the impact of the death of a family member on surviving members according to the timing of the death in the family's life cycle; selected other variables known to impact the family's experience of a death that may differ by the family's place in the life cycle were also assessed. If significant differences between families at various stages of the family life cycle are identified, then appropriate interventions need to be designed for those target populations.

CHAPTER 3 METHODOLOGY

And you would accept the seasons of your heart,
even as you have always accepted the seasons
that pass over your fields.
And you would watch with serenity
through the winters of your grief.
--Kahlil Gibran

Statement of Purpose

The purpose of this study was to determine whether there were differences in the levels of stress reported by families at different phases in the family life spiral when they had experienced a death in their family. Four phases were identified: periods of more centrifugal (CF) orientation or more centripetal (CP) orientation, and the two transitional phases between those phases. Specifically, predictions generated by the theory behind Combrinck-Graham's Family Life Spiral Model were tested, namely, that death would have a more stressful impact on families at CF phases of the family life cycle than at other phases due to the CP pull of death, which is contrary to the momentum and organizational patterns that are normal for families at CF phases.

Numerous family resource variables are known to affect the level of stress experienced with the death of family members; several of these variables were also measured in this study, specifically, a family's expressive communication, their use of social support, their cohesion, and their adaptability.

In this chapter the research hypotheses, relevant variables, data analysis, the population, subjects, and data collection are described. The instrumentation and methodology are also discussed.

Hypotheses

The following null hypotheses were evaluated in this study:

H₁: When death of a family member occurs, there is no significant difference in the amount of stress reported among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral.

H₂: When death of a family member occurs, there is no significant difference in the type of stress reactions among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral.

H₃: There is no significant difference in expressive communication among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral.

H₄: There is no significant difference in social support among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral.

H₅: There is no significant difference among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral on measures of family cohesion.

H₆: There is no significant difference among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral on measures of family adaptability.

H₇: There is no relation between levels of family stress and the family's cohesion and adaptability.

H₈: There is no relation between levels of family stress and measures of social support.

H₉: There is no relation between levels of family stress and measures of communication.

H₁₀: There is no relation between a family's communication and their adaptability and cohesion.

Delineation of Relevant Variables

Dependent Variable

The impact of death, the dependent variable in this study, was defined in terms of the changes in the life of the family in the first year postdeath. These changes encompass the extent of the reported stresses of intrafamily and marital relationships, pregnancy and childbearing, financial and business strains, work-family transitions, illness and family caregiving strains, losses (in addition to the death of the Hospice patient), transitions in and out of the family, and family legal violations (McCubbin & Thompson, 1991). The FILE was used to assess these changes.

Several independent variables were assessed: quadrant of the family life spiral, social support, communication, cohesion, and adaptability.

Independent Variables

Stage of the family life cycle. The ability of family members to adapt to stressors and the rate at which they do was believed to be related to the developmental stage of the family and their location in phase-space. Certain periods in the life cycle are known to be more stressful for families, particularly those that involve both beginnings and endings, as in births, launching young adults, retirement, and death (Haley, 1973; Herz, 1980; Hoffman, 1988; Ireys & Burr, 1984; McCubbin & Patterson, 1983; Neugarten, 1976; Olson et al., 1983; Rolland, 1990; Stanton, 1978; Walsh & McGoldrick, 1987). In this study, the stage of the family life cycle was assessed by determining the best fit with phases (i.e., quadrants) of the Family Life Spiral Model, using the methods developed by Olson et al. (1983) in their study of normal families across the life cycle.

Communication. How family members communicate with one another is a key factor in how well they are able to cope with the stressors they face (Olson et al., 1983),

especially the stress occasioned by the death of one of their members. Communication has been noted to vary across the family life cycle as families' boundaries open and close to help facilitate the mastery of developmental tasks at each stage of the family life cycle (Rosen, 1987, 1990a). There are numerous facets of communication that can be assessed--clarity of communication, empathy, amount of self-disclosure, or expressiveness--to name a few. The type of communication that was deemed of importance for families coping with the death of one of their members is their level of expressive communication, their ability to be open in expressing their feelings with one another (Brown, 1988; Rando, 1984; Rosen, 1987; Walsh & McGoldrick, 1987, 1991). In this study expressive communication was measured by the Expressiveness subscale of the FES (Moos & Moos, 1986).

Social support. Social support is defined as the family's perception of the degree to which they view relatives, friends, and the community as a source of emotional support in the management of their stressors and strains (McCubbin & Thompson, 1991). The importance of social support has been shown to aid families who are coping with the death of a family member, its utilization by families often varying with the stage of the family life cycle (Bankoff, 1983; Brubaker, 1985; Cohen et al., 1977; Cronkite & Moos, 1984; Davies et al., 1986; Elizur & Kaffman, 1983; Ellard, 1974; Helmrath & Steinitz, 1978; Holahan & Moos, 1985, 1986; Ireys & Burr, 1984; Mulhern et al., 1983; Valeriote & Fine, 1987; Weber & Fournier, 1985). Social support was measured in this study by the Social Support subscale and the Relative and Friend Support subscale of FIRA-G.

Cohesion and adaptability. Cohesion is defined as the degree of separation or connection between family members and primarily concerns the emotional bonding members have with one another (Olson et al., 1985). Adaptability is the extent to which the family system is flexible and able to change its power structure, role relationships, and relationship rules in response to situational and developmental stress (Olson et al., 1985). The demands for cohesion and adaptability are high when dealing with the stressor of death

(Beavers, 1982; Beavers & Voeller, 1983; Davies et al., 1986; McGoldrick & Walsh, 1983; Walsh & McGoldrick, 1991; Weber & Fournier, 1985) and have been shown to vary across the family's normal developmental life cycle (Olson, 1988; Olson et al., 1983). In this study the variables of cohesion and adaptability were measured by FACES-II (Olson et al., 1985).

Data Analysis

Table 2 shows the analyses that were conducted. Multiple regression was used to evaluate the impact of death on families depending upon phase of the family life spiral. Other predictor variables measured were social support, communication, cohesion, and adaptability. These other variables that are known to affect the way a family copes with death were hypothesized to account for some of the variation between phases of the family life spiral. The impact of death on families was regressed on phase of the family life spiral (as represented in the four quadrants of the Family Life Spiral Model), as well as on the other variables of communication, social support, cohesion, and adaptability. Multiple regression was used in order to determine more accurately the significance of the phase of the life spiral as a predictor of the impact of death on the family, as well as the significance of the variables of communication, social support, cohesion, and adaptability. ANOVAs were used to analyze the effects of phase of the family life spiral on the variables of social support, cohesion, and adaptability. These variables are operationalized as shown in Figure 4.

Description of the Population

The population was composed of the families of patients who were referred to the Hospice of North Central Florida by their physicians for comfort care during the last stages of their terminal illness. The patient population was from an 11-county area of north-central Florida, encompassing Alachua, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Levy, Putnam, Suwannee, and Union counties. The population in the state of

Table 2

Table of Analyses

Analysis	H ₀	Independent Variables	Dependent Variable
Regression Interaction Main Effects	H ₁ , H ₇₋₉	Quadrant Cohesion Adaptability Communication Social Support	Stress
Regression Interaction Main Effects	H ₁ , H ₇₋₉	Quadrant Cohesion (D) ^a Adaptability (D) Communication (D) Social Support (D)	Stress (D)
Regression Interaction Main Effects	H ₁ , H ₇₋₉	Quadrant Cohesion (D) Adaptability (D) Communication (D) Social Support (D)	Stress
ANOVA	H ₇	Cohesion/Adaptability (Family Subtypes)	Stress
Regression Interaction Main Effects	H ₃ , H ₁₀	Quadrant Cohesion Adaptability	Communication
Regression Interaction Main Effects	H ₃ , H ₁₀	Quadrant Cohesion (D) Adaptability (D)	Communication (D)
ANOVA	H ₂	Quadrant	Type of Stress
ANOVA	H ₅	Quadrant	Cohesion
		Quadrant	Cohesion (D)
ANOVA	H ₆	Quadrant	Adaptability
		Quadrant	Adaptability (D)
ANOVA	H ₄	Quadrant	Social Support
		Quadrant	Social Support (D)

Table 2--continued

Analysis	H ₀	Independent Variables	Dependent Variable
ANOVA	H ₄	Quadrant	Relative/Friend Support
		Quadrant	Relative/Friend Support (D)
ANOVA		Individual Stages	Stress

^a(D) denotes discrepancy scores.

Florida in 1990 was 84% white, 14% African-American, 1% Hispanic, and 1% other (U.S. Bureau of the Census, 1990). The population of the 11 counties serviced by Hospice of North Central Florida in 1990 was 80% white, 18% black, and 2% other minorities (Florida Statistical Abstract, 1991). The Hospice of North Central Florida patient census for 1992 was 83% white, 15% African-American, 1% other minorities, and 1% not determined. Table 3 shows the percentages by categories for each population subsample. Women accounted for 51.6% of Florida's population in 1990 (U.S. Bureau of the Census, 1990) and were 44% of the Hospice census for 1992. Fifty-nine percent of the research sample were females, 41% male.

Sampling Procedures

Each family who had been served by the Hospice of North Central Florida was sent a letter approximately 11 months after the death of their family member (Appendix A) explaining the purpose of this research project and requesting their participation. Letters were sent out weekly beginning 5/6/93 through 8/20/93. A total of 373 letters were sent. Follow-up phone contact was made approximately 2 weeks after the mailing of the letter. After 207 letters had been sent, 79% of the sample had been generated. It took

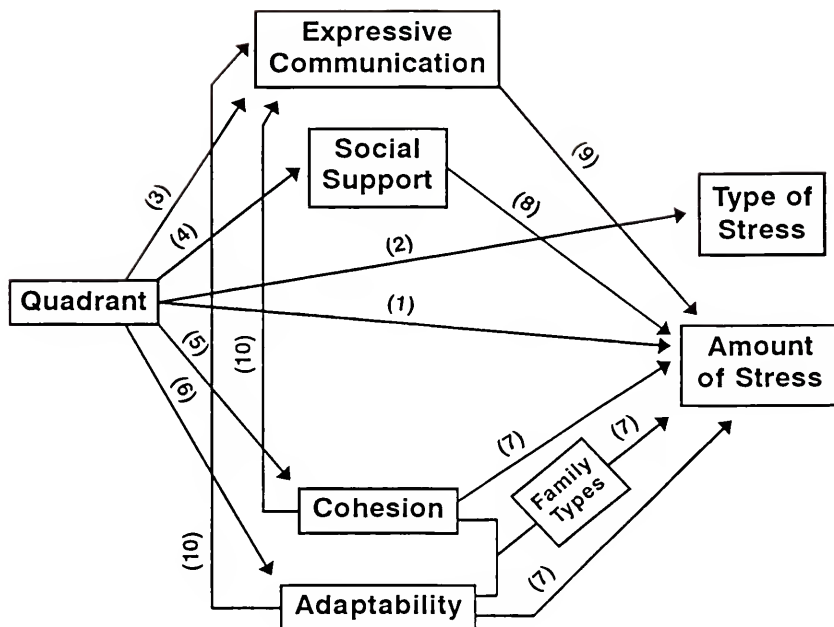


Figure 4. Operationalized Model (numbers in parentheses denote hypotheses)

Table 3

Comparative Breakdown by Ethnicity for Population Subsamples

Population Subsample	White	African American	Hispanic	Other
Population of Florida, 1990	84%	14%	1%	1%
Population of service area, 1990	80%	18%	*	2%
Hospice of North Central Florida 1992 patient census	83%	15%	*	2%
Research sample	90%	7%	2%	1%

*Not measured separately but included in "Other."

an additional 166 letters to add the final 21% of the sample. Eighty-four families (23%) agreed to participate. Of the 373 letters sent, 21% were unable to be reached (either not at home, phone was disconnected, or no phone number was available), 23% declined to participate, and 33% were inappropriate (either single, not in a usable family configuration, or as quadrants filled, unnecessary for the sample). Thus, the final return rate (returned/appropriate and reached) was 50%.

In addition to assessing willingness to participate, the personal phone call was also used to determine whether a family configuration existed in each household that warranted further screening. If permission was granted for participation, an assessment was made by phone as to which family members would be assessed (Appendix B). A minimum of two members from each family needed to be available and agreeable to being assessed. No maximum was set. Eighty-eight percent of the sample were two-member families; 10% were three-member families; one was a four-member family; and one had five members. A date was then set for the investigator to assess the participating family

members. All assessments were completed within 2 weeks of the 1-year anniversary of the death.

Stage of the family life cycle (and the relevant quadrant of the family life spiral) was also determined during the course of the phone call (Appendix C). Stage divisions were patterned after the Olson et al. (1983) study of normal families across the family life cycle with categories added to coordinate with phases of Combrinck-Graham's (1983, 1985) Family Life Spiral Model. The stage of the family life cycle was determined by the age of the oldest child living at home. After all children had been launched from the home, stage of the family life cycle was determined by age of grandchildren if present or, if absent, the developmental tasks the family was facing. Although most families have more than one child, the oldest child in the home is believed to serve as the catalyst for introducing new demands on the family to change its previous patterns of functioning (Olson et al., 1983). The personal phone call also allowed the researcher to give further explanation as to why the study was being conducted, the way the data was to be collected, the type of instruments used, the approximate time commitment involved, and the necessary participation of two or more appropriate members from each family.

Because the CP quadrant of the model was especially difficult for which to find families, the methodological procedures were modified in order to obtain 10 of those families. It was determined that these assessments would be done by mail rather than in person, with the investigator being available by phone for questions and follow-up. Five of those 10 families lived out of the 11-county area that Hospice of North Central Florida serves, although the patient had lived within the service area. The remaining five families were willing and able to participate if by mail, but not in person.

The modified procedure entailed sending the packets by first-class mail to the families, with a letter (Appendix J) detailing the specific instructions that would have normally been given in person. A stamped, self-addressed envelope was included. A

phone call was made by the investigator approximately 1 week after the packet had been mailed to insure arrival and also to see if there were any questions. Weekly phone calls were made to participants to check on the status of their questionnaire packet until 10 of the mailed packets had been returned. All packets were returned within 4 weeks. Two packets were never returned. All 84 of the families in the sample were sent a handwritten thank you note after the data were collected expressing the investigator's appreciation for their participation.

Subjects

The sample consisted of 84 families, 80 from north central Florida. Three of the remaining four families were out-of-state family members, and one was in south Florida. They all were close to the deceased family member and present at or near the time of death. A minimum of 20 families per quadrant on the Family Life Spiral Model constituted the sample. The CP quadrant had 20 families; the CP→CF quadrant had 21 families; the CF quadrant had 23 families; and the CF→CP quadrant had 20 families. Seventy-four of the families had 2 people participating in the study; 8 had 3 members participate; 1 had 4 participants; and 1 had 5 members willing to participate. Of the sample, 48 (27%) were single, 102 (57%) married, 1 (.6%) separated, 10 (6%) divorced, and 19 (11%) widowed. Fifty-four percent of the families sampled included only one generation in the sample; 46% of the sample assessed families with two generations living together and participating in the study. The primary caregiver was one of the family members assessed in 75 out of the 84 families sampled.

The configuration of the families in the sample is shown in Appendix K. Sixteen had lost a spouse--14 had lost husbands and 2 had lost wives. Adult children who had lost a parent numbered 57--25 sons, 32 daughters. Adolescents who had lost a parent numbered 7--2 sons, 5 daughters. Four additional adult children lost a stepparent--2 stepsons, 2 stepdaughters. Three parents had lost children--2 mothers, 1 father; 1

stepmother had lost a child. Eleven had lost a sibling--6 brothers, 5 sisters. Twenty-one had lost a grandparent; 4 had lost a greatgrandparent. One grandmother had lost a grandchild; 1 greatgrandmother had lost a greatgrandchild. One niece and 1 nephew were included in the sample. Fifty-two were in-laws. The percentage of deceased patients by age at time of death were as follows: 1% were children, 6% were young adults (27-39), 7% were in their 40s, 10% were in their 50s, 23% were in their 60s, 26% were in their 70s, and 27% were in their 80s.

Frequency and percent of individuals across the family's life cycle is shown in Table 4. Breakdown by county is shown in Table 5.

Table 4

Representation of Sample Across Family Life Cycle

Stage	N	Percent
Adolescence	25	14%
Courtship/Marriage	15	8%
Childbearing	22	12%
Settling Down	24	13%
40s Reevaluation	26	14%
Middle Adulthood	21	12%
Grandparenthood	16	9%
Planning for Retirement	18	10%
Retirement	6	3%
Late Adulthood	5	3%
Greatgrandparenthood	2	1%

Table 5

Breakdown by County for Patient Census and Research Sample

County	Hospice Patient Census 1991-1992	Research Sample
Alachua	42%	38%
Bradford/Union	7%	8%
Columbia/Suwannee/Hamilton	13%	12%
Dixie/Gilchrist/Levy	12%	8%
Putnam	26%	26%
Clay	--	2%
Duval	--	1%
Lake	--	1%
Volusia	--	1 %
Out-of-State	--	4%

Data Collection

Each family member participating in the study was given a separate packet of instruments, coded in the upper right hand corner with number of family and lettered for participant (e.g., 101A and 101B for a two-member family and 101A, 101B, and 101C for a three-member family, etc.). Each member filled out a demographic questionnaire, FILE, FES--Expressiveness Subscale, FIRA-G--Social Support, and Relative and Friend Support Subscales, and FACES-II, for a total of 144 questions. These assessments took approximately 20 to 60 minutes to complete. The interviewer was on hand to answer questions and process the assessment or available by phone for those participating by mail.

Instrumentation

In addition to a demographic questionnaire (Appendix H) assessing age, sex, marital status, ethnicity, county of residence, age of deceased, relationship to deceased, and income of participant, there were four standardized instruments used in this study: (a) the Family Inventory of Life Events and Changes (FILE, Appendix D), (b) the Family Environment Scale (FES), Expressiveness Subscale (Appendix E), (c) the Family Index of Regenerativity and Adaptation--General (FIRA-G), Social Support Subscale, and Relative and Friend Support Subscale (Appendix F), and (d) Family Adaptability and Cohesion Scales (FACES-II, Appendix G). A checklist for the stages of the family life cycle was filled out by the interviewer based on questioning family members as to their ages, ages of their children or grandchildren, and/or developmental tasks they were facing (Appendix C).

Family Inventory of Life Events and Changes (FILE)

Measurement of the dependent variable, the impact of the death, was measured by FILE, Form C (Appendix D). The FILE was used to assess the family's vulnerability as a result of the pile-up of stressors in the areas of intrafamily strains, marital strains, finance and business strains, work-family transitions and strains, illness, losses, transitions in and out, and legal violations.

The theory behind FILE is that families who have experienced an unusual number of stressors and strains have taxed their psychological and interpersonal resources. They are considered vulnerable to future stressors and strains, are prone to experience sudden tension and conflicts seemingly without provocation, and are less able to recover from the impact of problems or difficulties. Their problem-solving abilities may be hampered, leaving them with a feeling that there are many loose ends and unresolved conflicts. Eventually such excessive demands take their toll if there are not sufficient resources to reduce the demands to a manageable level (McCubbin & Thompson, 1991).

The FILE is a 71-item self-report instrument designed to record the life events and changes experienced by a family unit. Originally developed in 1980, it was normed on 980 couples from a national sample. It is designed to be administered to one or more members of a family unit, age 12 and above. Family members are asked to record whether certain life events and strains happened to any member of the family unit and to the family as a group during the past year.

The items for FILE were created on the basis of factor analysis and are grouped into nine scales. All events experienced by each member of the family are recorded. Internal consistency of items was evaluated, and the overall reliability (Cronbach's Alpha) for FILE is .81. Test-retest reliability ranges from .66 to .84 for the individual scales and is .80 for the total scale. Validity of the instrument was assessed by discriminant analyses between low-conflict families and high-conflict families who had children with cerebral palsy or myelomeningocele. High-conflict families experienced significantly higher numbers of life changes. Construct validity has been assessed by comparing the FILE scales with a measure of family functioning, the Family Environment Scales (Moos, 1974). A pile-up of life changes was found to be negatively correlated with desirable dimensions of the family environment, such as cohesion, independence, and organization, and positively correlated with undesirable characteristics of the family environment such as conflict (McCubbin & Thompson, 1991). Predictive validity studies were carried out on a group of children with cystic fibrosis. A pile-up of family life changes was negatively correlated with the child's pulmonary functioning (McCubbin & Thompson, 1991).

The FILE can be scored in numerous ways, depending upon the purpose of the study. For this study, FILE was scored in two ways:

1. The FILE was completed separately by each person. The family composite score was determined by examining the three completed instruments simultaneously, one item at a time. If any member recorded yes on an item, the family score would be a yes and would

be given the appropriate standardized weight for that item. Weights based on the relative magnitude and intensity of the event or strain are presented in the instrument. Given that family life events and strains are not all equal in demand, the weighting procedure appears to be a more accurate estimate of the severity of the stress facing families, rather than a sum of the number of stressors. These weights are summed to obtain subscale scores and the total pile-up family-couple readjustment score. Higher scores signify higher perceived stress. This procedure is based on the belief that each family member may actually observe and/or experience family life events or strains differently. Each family member's observations and responses are treated as a valid record of family stressors and strains (McCubbin & Thompson, 1991). The weighted sums also allow the comparison of this sample to Olson's study of normal families and the stress levels recorded for normal families at each stage of the family life cycle (Olson et al., 1983) (see Table 1).

Discrepancy scores were not computed for weighted scores.

2. The second method of scoring FILE was the family discrepancy scores. The extent of disagreement among family members with regard to their perceptions of life events and changes in the family is an important factor to take into consideration in the assessment of the impact of a stressor event such as death. Discrepancy scores allow the addressing of the question, "Do families at CF stages show more disagreement among family members than families at other stages?"

In order to obtain the family discrepancy scores, the independent responses of each family member are scored separately and the number of discrepancies between each pair recorded. Each discrepancy is given a score of one and summed for both the subscales and the total scale score. In this study mean discrepancy scores were computed for families as well as within-family standard deviations.

Stage of the Family Life Cycle

Stage of the family life cycle was assessed by the interviewer based on the categorical descriptions in Appendix C. The family life cycle has been divided into a variety of numbers of stages, generally based on the events and developmental tasks the family is facing, primarily the entry and exit of various members from the system (Carter & McGoldrick, 1988; Combrinck-Graham, 1983, 1985; Duvall & Miller, 1985). The family life spiral follows a three-generational spiral continuum that portrays new generations being added as older generations die. However, in order to operationalize the family life cycle for research purposes, it was aligned with the family life spiral and divided into quadrants. The stages of the life cycle delineated here are those identified on the Family Life Spiral Model (see Figures 1 and 2) (Combrinck-Graham, 1983, 1985). The family life cycle stages are defined primarily by the age of the oldest child for families who still have children living at home. For those who have launched all their children, the stages are defined by the ages of their grandchildren or the developmental tasks the family without grandchildren is facing at the later stages of life.

Each family member's placement on the Family Life Spiral Model was assessed by the interviewer to determine which of the four quadrants best fit each family's stage of development (Appendix C). Families were then categorized as CP, CP→CF, CF, or CF→CP. Families who did not clearly fit the model were not assessed in this study.

Family Environment Scale (FES)

The independent variable, expressive communication, was measured by the Expressiveness Subscale of the FES (Moos & Moos, 1986). The Real Form (Form R), which measures people's perceptions of their conjugal or nuclear family environments, was used to assess the extent to which family members are encouraged to act openly and to express their feelings directly.

The Expressiveness Subscale is composed of nine questions, answered True or False, to be answered on an individual basis. To derive the individual's score, one point is given for False answers to questions 1, 3, 6, and 8; one point is given for True answers to questions 2, 4, 5, 7, and 9. To derive a score for the whole family's view of the expressiveness environment, an average score can then be calculated for all the members of each family for each subscale.

The degree of disagreement among family members with regard to their perceptions of the family environment varies among families. Since the degree of disagreement in families is an important characteristic of a family, the family discrepancy score was also used. It is, thus, possible to determine if high stress families show more disagreement than low stress families. Family discrepancy scores are computed by obtaining the absolute difference between each pair of family members for the total subscale score. For two-member families there is one possible pair with one score representing the differences between the two members. For three-member families, there are three possible pairs with three scores representing the differences between each pair. The discrepancy score for a three-member family is the sum of the score differences between each possible pair, with a range of 0 (if all members were in agreement on each question) to 18 (if two members were in disagreement with the third on each question, which is the worst-case scenario). The family discrepancy score is the average of the discrepancy scores from each possible pair and expresses the extent to which these family members disagree about their family climate.

Norms for Form R of the FES were collected for 1,125 normal and 500 distressed families in 1981. The subsample of normal families was from all areas of the country, single-parent and multigenerational families, families drawn from ethnic minority groups, and families of all age groups. Distressed families were from a local correctional facility, families of alcohol abusers, families of general psychiatric patients, and families with a

child in crisis. As expected, when compared with normal families, distressed families are lower on expressiveness.

The items for the FES were constructed from information gathered in structured interviews with members of different types of families, normal and distressed.

Psychometric criteria used to select items for the final form of the FES were as follows:

(a) The overall item split should be as close to 50-50 as possible to avoid items characteristic only of unusual families; (b) there would be an approximately equal number of items scored true and scored false in each subscale to control for acquiescence response set; (c) items within each subscale correlated more highly within their own subscale than with any other subscale; (d) each subscale would have low to moderate intercorrelations with other subscales; and (e) each item would discriminate among families (Moos & Moos, 1986).

Internal consistency as measured by Cronbach's Alpha was .69 for the expressiveness subscale; test-retest reliability from 2 months to 12 months ranged from .73 to .69. Form R thus appears to be stable over time intervals of as long as a year.

Construct validity for the FES expressiveness subscale was found in its predictable relationship to the Spanier Dyadic Adjustment Scale. There was also a significant relationship between couples' perceptions of high family cohesion, expressiveness, and lack of conflict and their reports of emotional, social, and sexual intimacy. Professionally trained raters' ratings correlated significantly with families' reports of cohesion, expressiveness, conflict, and religious emphasis (Moos & Moos, 1986).

Family Index of Regenerativity and Adaptation--General (FIRA-G)

The independent variable, social support, was measured by two subscales from FIRA-G, the Social Support subscale and the Relative and Friend Support subscale, for a combined 25 questions. Each of these subscales was developed initially in 1982 and

normed on samples of 2,400 normal families, 1,000 military families and 1,400 nonmilitary families.

The Social Support subscale consists of 17 items selected to record the degree to which families are integrated into the community, view the community as a source of support, and feel that the community can provide emotional, esteem, and network support. The psychometric properties of the Social Support index include an internal consistency of .82 and a validity coefficient (correlation with the criterion of family well-being) of .40 (McCubbin & Thompson, 1991).

The Relative and Friend Support subscale consists of eight items selected to record the degree to which families call upon relatives and friends as one of their strategies for managing stressors and strains. The psychometric properties of this subscale include an internal consistency of .82 and validity coefficient (correlation with FCOPES) of .99 (McCubbin & Thompson, 1991).

Scoring of the Relative and Friend Support subscale involves the placement of the score for each of the eight items on a Likert scale from 1 to 5 from strongly disagree to strongly agree, on the line to the left of each item. The individual's scores are then summed and added together with other members of the family to compute the family mean score. The Social Support subscale involves the same procedure as the Relative and Friend Support subscale. Family discrepancy scores were also computed for these subscales by the same means used for FILE and FES.

Family Adaptability and Cohesion Evaluation Scales (FACES-II)

The independent variables of cohesion and adaptability were measured by FACES-II. The scale is designed to measure family dynamics with a focus on system characteristics of all the family members currently living at home. There is a version of FACES-II for couples. The original version was developed by Olson, Russell, and Sprenkle in 1979 as an outgrowth of their Circumplex Model and modified in 1981. Using

factor analysis and alpha reliability analysis, the scale was reduced from 90 items to 50. In 1983 the 50-item scale was administered to 2,400 individuals in Olson's study of normal families across the family life cycle (Olson et al., 1983), and with further factor analysis and alpha reliability analysis, the scale was reduced to 30 items. Although FACES III developed in 1985 is the most recent version, Olson advises that FACES-II is more advantageous for research purposes at the present time (D. Olson, personal communication, June 1991).

Within the model, specific concepts that are used to diagnose and measure the cohesion dimension are emotional bonding, boundaries, coalitions, friends, decision making, interests, and recreation. Concepts used to diagnose and measure the adaptability dimension are family power (assertiveness, control, discipline), negotiation style, role relationships, and relationship rules. Both of these dimensions are lineal concepts, ranging from disengaged to very connected for cohesion, and rigid to very flexible for adaptability. Extreme families are more frequently found at the low ends of both of these continuums (disengaged and rigid) and balanced families at the high ends (very connected and very flexible).

Cronbach Alpha figures for FACES-II are .87 for the cohesion dimension, .78 for the adaptability dimension, and .90 for the total scale. Test-retest reliability for the original 50-item version of FACES-II over a 4- to 5-week period was .84. Concurrent validity has been reported to be .93 for cohesion and .79 for adaptability with the Beavers Self-Report Family Inventory measure of global health (D. Olson, personal communication, June 1991).

The FACES-II was administered to each individual in the family who was participating in the study. For couples without children, the Couples Form was used. Each respondent was asked to read the 30 statements and decide for each one how frequently the described behavior occurs in their family. The scale ranges from 1 (almost

never) to 5 (almost always). Respondents indicated the appropriate number to the left of the item (see Appendix G). In order to score cohesion, the sum of the scores for items 3, 9, 15, 25, and 29 are subtracted from 36. The sum of all other odd-numbered items plus item 30 is added to the first sum which gives the total score for cohesion. The final range of an individual score on cohesion should be between 16-80. The same basic scoring procedure is used for scoring adaptability. The sum of items 24 and 28 are subtracted from 12. The sum of all other even numbered items except 30 is added to the first sum which gives the total for adaptability. The final scores for each individual on adaptability may range between 15-70.

Total cohesion score:

	36	
(-)	—	(sum of 3, 9, 15, 19, 25, 29)
(+)	—	(sum all other odd numbers plus item 30)
(=)	—	Total Cohesion

Total adaptability score:

	12	
(-)	—	(sum 24, 28)
(+)	—	(sum all other even numbers except item 30)
(=)	—	Total Adaptability

The cutting points are noted on the Linear Scoring and Interpretation sheet in Appendix I.

Couple and family mean scores are obtained by the following formulas

(H=Husband, W=Wife, A=Adolescent):

Couple Mean on Cohesion	=	(HC + WC) / 2
Couple Mean on Adaptability	=	(HA + WA) / 2
Family Mean on Cohesion	=	(HC + WC + AC) / 3
Family Mean on Adaptability	=	(HA + WA + AA) / 3

Couple and family discrepancy scores (DS) are obtained by using the standard deviation.

CHAPTER 4 DATA ANALYSIS AND RESULTS

When you look back at the anguish, suffering, and traumas in your life, you'll see that these are the periods of biggest growth. After a loss that brings you dreadfully painful months, you are a different man, a different woman. Many years later, you will be able to look back and see the positive things--togetherness in the family, faith or whatever--that came out of the pain.

--Elisabeth Kübler-Ross

Analysis Procedures

The analysis of data for this study was accomplished by performing a multiple regression analysis using the SAS General Linear Model (GLM). The goal of the regression analysis was to determine the relationship between an outcome measure and relevant independent measures. This can be done globally by examining the entire model, or it can be done for individual variables when the effects for all other variables are held constant. In this study a series of regression models were developed to test 6 of the 10 research hypotheses (see Table 2). A series of ANOVAS were developed to test the remaining 4 hypotheses. One set of equations included quadrant, expressive communication, social support measures, cohesion, and adaptability as the independent variables, with amount or type of stress as the outcome variable. The other set of equations evaluated quadrant as the input measure and communication, social support, cohesion, and adaptability as the output measures. The relationship between cohesion and adaptability as

input variables and expressive communication as the outcome variable was also examined (see Table 2 and Figure 5).

In the regression analyses, one equation tested for interactions between each of the other input variables. The absence of interaction indicates that the relationship between the dependent variable and the independent variable does not change for different levels of the control variable. When plotted, the scores for each of the categorical variables are indicated by parallel lines when no interaction is present.

If the equation which incorporated the interaction effects was found to have no significant improvement in model fit, the main effects equation was utilized. The regression coefficients for that model were then tested for their levels of attained significance. The regression coefficients provide information regarding the direction of the relationship between each independent variable and dependent variable by examination of the sign of the coefficient. A positive coefficient indicates that an increase in the independent variable results in an increase in the dependent variable. A negative coefficient describes an inverse relationship: As the independent variable increases, the dependent variable decreases. The magnitude of the regression coefficient also indicates how much a change in the independent variable affects change in the dependent variable.

For purposes of determining levels of statistical significance, the Type I error rate of .05 was established as the decision rule for all statistical tests. Source data were rounded to the nearest hundredth. Because 9 of the 20 families sampled in the CP quadrant were assessed by mail, independent sample t-tests were first run to compare the means of each variable and scale in the assessment package for those assessments that were mailed and those that were obtained by home visit. No significant differences were found on 29 of the 30 measures. The exception was for the discrepancy scores on the pregnancy and childbearing strains subscale of the FILE and is considered a Type I error that will not be discussed. No pattern of response bias was found, and data were pooled for the analyses.

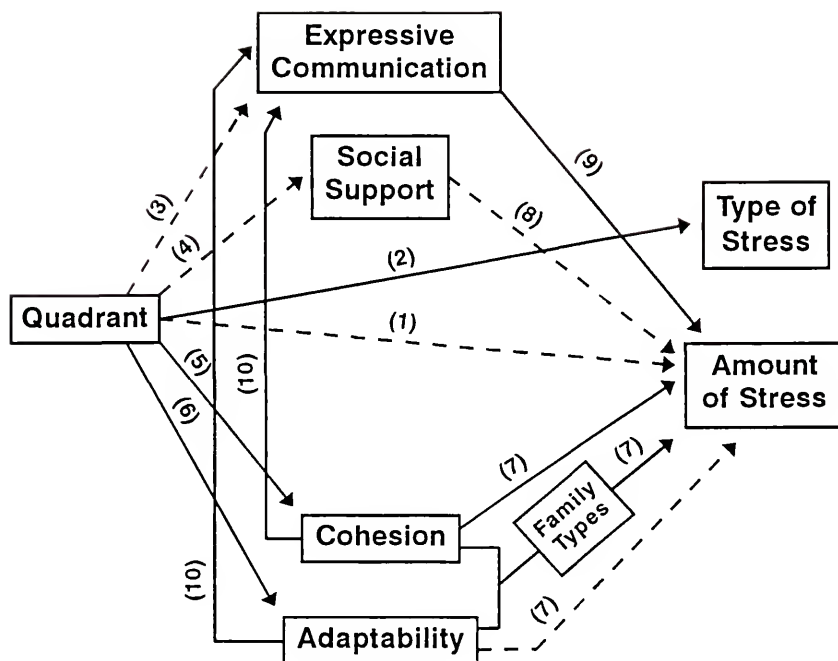


Figure 5. Operationalized Model with Results of Hypotheses Testing (numbers in parentheses denote hypotheses; solid lines indicate significance at $p < .05$; broken lines indicate nonsignificance)

Analysis Results

The first pair of equations evaluated H_1 , H_7 , H_8 , and H_9 . Input variables were family life spiral quadrant and family mean scores on cohesion, adaptability, expressive communication, social support, and relative and friend support; the output variable was the family composite score for stress. The equation with interaction terms failed to achieve significance ($F_{(23,60)} = 1.28$, $p = .22$). However, the main effects equation was significant ($F_{(8,75)} = 2.36$, $p = .03$) with this model accounting for 20% ($R^2 = .201$) of the variance in the level of family stress (Table 6). Cohesion was the only predictor variable that achieved significance, $p = .04$, and the regression coefficient was negative, meaning that as cohesion increases 1 point, the family's stress levels can be expected to decrease 9.31 points on FILE, the measure for family stress. Quadrant ($F = 1.07$, $p = .37$), adaptability ($F = 1.57$, $p = .21$), communication ($F = 3.49$, $p = .07$), social support ($F = 0.41$, $p = .52$), and relative and friend support ($F = 1.30$, $p = .26$) did not significantly predict degrees of family stress in this model. The means, discrepancies, and standard deviations for each of the variables are shown in Table 7.

The next series of equations tested the ability of quadrant and the discrepancy scores on communication, social support, relative and friend support, cohesion, and adaptability to predict stress discrepancy scores (Table 8). Both the interaction and main effects equations for this model testing H_1 , H_7 , H_8 , and H_9 were found to have significant F values, $F_{(23,59)} = 2.13$, $p = .01$, and $F_{(8,74)} = 2.76$, $p = .0099$, respectively. However, the interaction model failed to achieve significance for any one of the independent variables. Results of an overall test showed no significant difference between the two models ($F_{obs} = 1.41 < F_{crit(.05,15)} = 1.84$). The more parsimonious equation was then used. In the main effects equation, 23% of the variance in the stress discrepancy scores was accounted for jointly by the independent variables being examined ($R^2 = .230$). The discrepancy scores on the cohesion scale were found to be a significant predictor of the discrepancy on stress

Table 6

Regression Model Testing Quadrant, Cohesion, Adaptability, Communication, Social Support, and Relative and Friend Support with Family Composite Score for Stress as Outcome Variable

Input Variables	df	Type III SS	F-value	p-value
Quadrant	3	160131.38	1.07	.37
Cohesion	1	223116.22	4.47	.04*
Adaptability	1	78244.15	1.57	.21
Communication	1	173906.80	3.49	.07
Social Support	1	20487.83	0.41	.52
Relative/Friend	1	64735.13	1.30	.26
Error	75	3741278.45		

Input Variables	Regression Coefficient	Standard Error of Estimate	t-value	p
Intercept	1095.61	412.45	2.66	.01
CP Quadrant	52.22	73.61	0.71	.48
CP→CF Quadrant	103.95	71.81	1.45	.15
CF Quadrant	-10.35	71.82	-0.14	.89
CF→CP Quadrant	0.00			
Cohesion	-9.31	4.40	-2.11	.04*
Adaptability	-7.68	6.13	-1.25	.21
Communication	39.07	20.93	1.87	.07
Social Support	3.79	5.91	0.64	.52
Relative/Friend	-6.61	5.81	-1.14	.26

*p<.05.

Table 7

Means, Discrepancies, and Standard Deviations for Instruments

Instrument	CP (n=20)	CP→CF (n=21)	CF (n=23)	CF→CP (n=20)
<u>FILE (Stress)</u>				
Weighted Sums Mean	425.5	464.7	444.5	389.0
Standard Deviation	(226.8)	(284.2)	(203.2)	(242.7)
Discrepancy	6.02	8.45	9.18	6.71
Standard Deviation	(5.48)	(6.38)	(5.25)	(5.42)
<u>FACES-II (Cohesion)</u>				
Family Mean	67.0	66.9	59.9	64.3
Standard Deviation	(8.3)	(8.4)	(9.0)	(10.2)
Discrepancy	6.4	4.4	8.6	3.1
Standard Deviation	(7.0)	(4.7)	(5.0)	(3.1)
<u>FACES-II (Adaptability)</u>				
Family Mean	51.7	51.4	46.8	52.4
Standard Deviation	(6.1)	(6.0)	(6.9)	(8.9)
Discrepancy	5.2	4.1	8.0	4.6
Standard Deviation	(4.8)	(3.2)	(6.1)	(3.4)
<u>FES (Expressive Communication)</u>				
Family Mean	5.97	5.56	5.46	5.82
Standard Deviation	(1.7)	(1.3)	(1.7)	(1.6)
Discrepancy	1.15	1.64	1.74	.97
Standard Deviation	(1.0)	(1.0)	(1.1)	(0.7)
<u>Social Support Index</u>				
Family Mean	60.8	62.5	62.4	63.3
Standard Deviation	(4.4)	(4.4)	(4.9)	(4.0)
Discrepancy	4.2	4.4	3.1	4.1
Standard Deviation	(3.2)	(4.7)	(1.9)	(2.7)
<u>Relative/Friend Support</u>				
Family Mean	25.0	26.0	26.3	26.2
Standard Deviation	(3.7)	(4.6)	(4.3)	(6.0)
Discrepancy	4.5	3.9	3.6	3.5
Standard Deviation	(4.4)	(4.6)	(2.7)	(4.8)

Table 8

Regression Model Testing Quadrant and Discrepancy Scores on Communication, Social Support, Relative and Friend Support, Cohesion, and Adaptability with Stress Discrepancy Scores as Outcome Variable

Input Variables	df	Type III SS	F-value	p
Quadrant	3	140.30	1.69	.18
Communication (D) ^a	1	6.52	0.24	.63
Social Support (D)	1	0.34	0.01	.91
Relative/Friend (D)	1	75.96	2.75	.10
Cohesion (D)	1	114.15	4.13	.05*
Adaptability (D)	1	31.42	1.14	.29
Error	74	2045.02		

Input Variables	Regression Coefficient	Standard Error of Estimate	t-value	p
Intercept	4.53	1.55	2.92	.004
CP Quadrant	-1.99	1.72	-1.16	.25
CP→CF Quadrant	1.87	1.74	1.07	.29
CF Quadrant	0.41	1.79	0.23	.82
CF→CP Quadrant	0.00			
Communication (D) ^a	-0.34	0.70	-0.49	.63
Social Support (D)	-0.02	0.19	-0.11	.91
Relative/Friend (D)	0.25	0.15	1.66	.10
Cohesion (D)	0.31	0.15	2.03	.05*
Adaptability (D)	0.17	0.16	1.07	.29

* $p < .05$.

^a(D) denotes discrepancy scores.

scores ($F = 4.13$, $p = .05$). The regression coefficient was positive, indicating that as discrepancy scores on cohesion increased, there was an increase in the discrepancy scores on the stress measure. Neither quadrant ($F = 1.69$, $p = .18$) nor the discrepancy scores on communication ($F = 0.24$, $p = .63$), social support ($F = 0.01$, $p = .91$), relative and friend support ($F = 2.75$, $p = .10$), and adaptability ($F = 1.14$, $p = .29$) were significant predictors of the discrepancy scores for stress.

An equation testing the predictive ability of quadrant and the discrepancy scores on cohesion, adaptability, communication, and social support for family composite stress levels was found to be significant (Table 9). The interaction model achieved significance ($F_{(23,59)} = 1.99$, $p = .02$) and accounted for 44% of the variance in the stress levels ($R^2 = .437$). The discrepancy score on cohesion was once again found to be a predictor of the family stress levels ($F = 5.16$, $p = .03$). The regression coefficient was positive, indicating that as discrepancy scores on cohesion increased, there was an increase on the stress measure. Interaction between quadrant and the discrepancy scores on communication was significant ($F = 3.18$, $p = .03$). When the regression coefficients were tested for significance, there was a significant difference in the relationship between the communication discrepancy scores and family composite stress levels for the CP→CF and CF quadrants (Table 10). Figure 6 shows that as communication discrepancy scores go up for CP→CF, there is a corresponding increase in the family composite stress levels. However, for CF families, the reverse is true. As communication discrepancy scores go up, the family's stress goes down.

After combining family scores on cohesion and adaptability according to Olson's Circumplex Model to determine family subtypes (see Linear Scoring and Interpretation, Appendix I), an analysis was run of the five most frequent family subtypes in this study to determine if there were any significant differences between subtypes and the amount of stress reported. The five family subtypes that were included in the ANOVA were Very

Table 9

Regression Model Testing Quadrant and Discrepancy Scores on Cohesion, Adaptability, Communication, Social Support, and Relative and Friend Support with Family Composite Score for Stress as Outcome Variable

Input Variables	df	Type III SS	F-value	p
Quadrant	3	43096.02	0.33	.80
Cohesion (D) ^a	1	225034.95	5.16	.03*
Adaptability (D)	1	13073.61	0.30	.59
Communication (D)	1	1935.32	0.04	.83
Social Support (D)	1	61516.83	1.41	.24
Relative/Friend (D)	1	150522.01	3.45	.07
Cohesion (D) by Quadrant	3	38723.48	0.30	.83
Adaptability (D) by Quadrant	3	139743.37	1.07	.37
Communication (D) by Quadrant	3	415360.94	3.18	.03*
Social Support (D) by Quadrant	3	109901.52	0.84	.48
Relative/Friend (D) by Quadrant	3	310655.05	2.38	.08
Error	59	2572155.94		

* $p < .05$.

^a(D) denotes discrepancy scores.

Table 10

Regression Coefficients and t-Values for Interaction Model for Quadrant and Discrepancy Scores on Cohesion, Adaptability, Communication, Social Support, and Relative and Friend Support with Family Composite Score for Stress as Outcome Variable

Input Variables	Regression Coefficient	Standard Error of Estimate	t-value	p
Intercept	215.33	116.94	1.84	.07
CP Quadrant	21.95	151.89	0.14	.89
CP→CF Quadrant	-14.74	164.56	-0.09	.93
CF Quadrant	144.30	175.25	0.82	.41
CF→CP Quadrant	0.00			
Cohesion (D) ^a	29.75	19.03	1.56	.12
Adaptability (D)	23.15	20.77	1.11	.27
Communication (D)	-67.10	87.23	-0.77	.44
Social Support (D)	7.76	21.92	0.35	.72
Relative/Friend (D)	2.70	12.26	0.22	.83
Cohesion (D) by CP Quadrant	-16.40	22.20	-0.74	.46
CP→CF Quadrant	-20.69	22.61	-0.92	.36
CF Quadrant	-18.21	22.51	-0.81	.42
CF→CP Quadrant	0.00			
Adaptability (D) by CP Quadrant	-7.60	24.88	-0.31	.76
CP→CF Quadrant	-35.57	30.96	-1.15	.26
CF Quadrant	-30.11	23.07	-1.31	.20
CF→CP Quadrant	0.00			

Table 10--continued

Input Variables	Regression Coefficient	Standard Error of Estimate	t-value	p
Communication (D) by CP Quadrant	85.80	106.92	0.80	.43
CP→CF Quadrant	201.86	109.86	1.84	.07
CF Quadrant	-47.92	101.02	-0.47	.64
CF→CP Quadrant	0.00			
Social Support (D) by CP Quadrant	6.29	27.68	0.23	.82
CP→CF Quadrant	-15.23	24.80	-0.61	.54
CF Quadrant	27.42	36.32	0.75	.45
CF→CP Quadrant	0.00			
Relative/Friend (D) by CP Quadrant	-15.57	18.05	-0.86	.39
CP→CF Quadrant	24.15	18.92	1.28	.21
CF Quadrant	34.18	21.17	1.61	.11
CF→CP Quadrant	0.00			

* $p < .05$.

^a(D) denotes discrepancy scores.

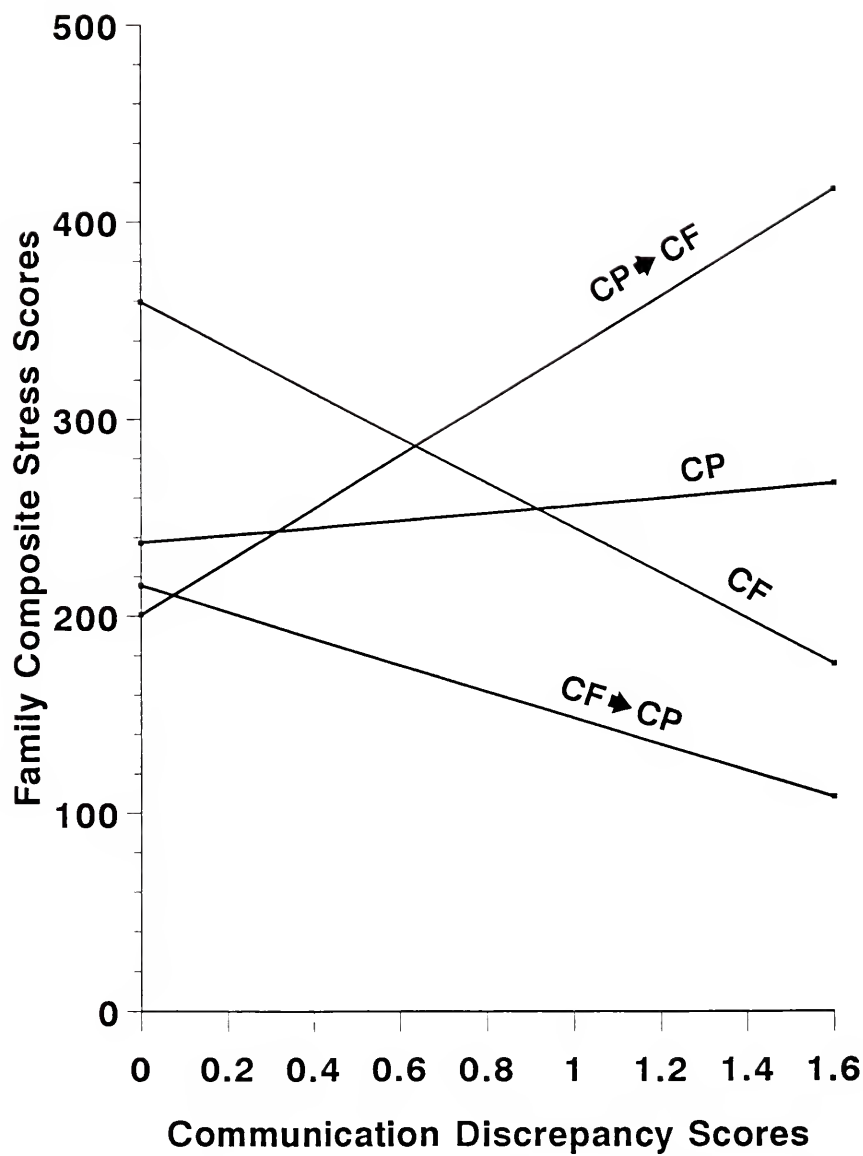


Figure 6. Interaction Between Family Stress Scores and Communication Discrepancy Scores by Quadrant

Connected-Very Flexible ($n = 20$), Very Connected-Flexible ($n = 7$), Connected-Flexible ($n = 21$), Separated-Flexible ($n = 10$), and Separated-Structured ($n = 8$). Significance was achieved ($F_{(4,61)} = 3.79$, $p = .008$), and these combinations of cohesion and adaptability into subtypes jointly accounted for 20% of the variance ($R^2 = .1989$) in the amount of stress reported by subtypes (Table 11). Tukey's pairwise comparisons determined that there was a significant difference between the stress levels reported by Very Connected-Very Flexible families (mean = 285) and Separated-Flexible families (mean = 569), as well as with Connected-Flexible families (mean = 496) with Very Connected-Very Flexible families significantly lower in stress. The mean for Separated-Structured families was 506, but the small size of the cell ($n = 8$) created a sample size effect due to the unstable mean.

Table 11

ANOVA for Relationship Between Family Subtypes and Stress

Input Variable	df	Type III SS	F-value	p-value
Family Subtype	4	778469.53	3.79	.008*
Error	61	3134492.63		

* $p < .05$.

H_2 was tested by running a series of ANOVAS for each of the subscales of the FILE to determine if there was any significant difference among quadrants on the types of stressors families experienced. Significance was achieved on only one of the nine subscales, pregnancy and childbearing strains, $F_{(3,80)} = 5.60$, $p = .002$ (Table 12). Quadrant accounted for 17% of the variance on this subscale ($R^2 = .173$). Tukey's posthoc pairwise comparison tests were run to determine which quadrants were

Table 12

ANOVAS for Types of Stressors by Quadrant

Input Variable	df	Type III SS	F-value	p-value
<u>Intra-Family Strains</u>				
Quadrant	3	5.68	.36	.78
Error	80	417.54		
<u>Marital Strains</u>				
Quadrant	3	.14	.49	.69
Error	80	7.74		
<u>Pregnancy and Childbearing</u>				
Quadrant	3	2.56	5.60	.002*
Error	80	12.19		
<u>Finance and Business</u>				
Quadrant	3	.50	.07	.97
Error	80	186.19		
<u>Work-Family Transitions</u>				
Quadrant	3	3.86	.51	.67
Error	80	200.40		
<u>Illness and Family Care</u>				
Quadrant	3	7.09	1.85	.14
Error	80	102.08		
<u>Losses</u>				
Quadrant	3	1.10	.78	.51
Error	80	37.60		
<u>Transitions In and Out</u>				
Quadrant	3	4.21	2.70	.05
Error	80	41.53		
<u>Family Legal Violations</u>				
Quadrant	3	.32	.49	.69
Error	80	17.61		

*p<.05.

significantly different. The CP quadrant and the CF quadrant differed significantly, $p = .004$, and the negative value of the estimate ($-.35$) indicated that the family mean for the CP quadrant (.44) was significantly higher on pregnancy and childbearing strains than the CF quadrant (.08). Examination of the means for the other quadrants indicated similar differences between the CP quadrant and the other two quadrants ($CP \rightarrow CF = .02$, $CF \rightarrow CP = 0.00$).

When no differences among quadrants were found in family stress levels, an ANOVA was run to determine if there were any significant differences between the individual's stage within the family life cycle and the amount of stress reported by the individual on the FILE. Because there were too few individuals in the retirement, late adulthood, and greatgrandparenthood stages, these three were collapsed together. This model was then found to be significant, $F_{(8,171)} = 2.50$, $p = .01$ (Table 13). Stage of the life cycle accounted for 10% of the variance in the amount of stress reported ($R^2 = .1046$). Analysis of the regression coefficients for the individual stages found that three of the stages had significant t-values, Childbearing ($p = .02$), Settling Down ($p = .002$), and 40s Reevaluation ($p = .04$).

Tukey's pairwise comparisons determined significant differences between individuals at the "settling down" stage of the life cycle and those individuals at the "planning for retirement" stage. The mean weighted sum score for individuals at the settling down stage was 580 compared with a score of 311 for those in the planning for retirement stage (Table 14). This difference is also theoretically significant in that both of these individual stages of the family life cycle are within the same quadrant on the Family Life Spiral Model and yet differ significantly in the amount of stress they experienced postdeath (Figure 7).

Four equations for the model testing H_3 and H_{10} were run. The first pair of equations testing for interaction and main effects (input variables quadrant, cohesion, and

Table 13

ANOVA for Individual Stress Scores by Individual's Stage in the Family Life Cycle

Input Variable	df	Type III SS	F	p
Individual Stages	8	1442501.20	2.50	.01*
Error	171	12346014.78		

Input Variables	Regression Coefficient	Standard Error of Estimate	t-value	p
Adolescence	137.96	83.06	1.66	.10
Marriage/Courtship	109.02	93.94	1.16	.25
Childbearing	207.56	85.40	2.43	.02*
Settling Down	268.14	83.78	3.20	.002*
40s Reevaluation	172.90	82.39	2.10	.04*
Middle Adulthood	121.79	86.31	1.41	.16
Grandparenthood	4.06	92.32	0.04	.97
Planning for Retirement	0.00			
Retirement, Late Adulthood, & Greatgrandparenthood	-5.06	97.80	-0.05	.96

*p<.05.

Table 14

Individual Stress Scores by Stage of the Family Life Cycle

Individual Stage	N	Weighted Sum
Adolescence	25	449
Marriage/Courtship	15	420
Childbearing	22	519
Settling Down	24	580
40s Reevaluation	26	484
Middle Adulthood	21	433
Grandparenthood	16	316
Plan for Retirement	18	311
Retirement, Late Adulthood, & Greatgrandparenthood	13	306

adaptability; outcome variable expressive communication) each achieved significance, $F_{(11,72)} = 4.91$, $p = .0001$, and $F_{(5,78)} = 11.13$, $p = .0001$, respectively. However, no significant interaction was found in the first equation. Results of an overall test showed no significant difference between the two models ($F_{obs} = .24 < F_{crit(.05,6)} = 2.35$). The main effects equation was then the model used. In this model, adaptability achieved significance as a predictor of expressive communication ($F = 11.95$, $p = .0009$) (Table 15). This model accounted for 42% ($R^2 = .416$) of the variance in communication. The positive value of the regression coefficient indicates that as adaptability increases by 1 point, expressive communication can be expected to increase .1 of a point. Neither quadrant ($F = 0.96$, $p = .42$) nor cohesion ($F = 2.54$, $p = .11$) achieved significance as predictors of expressive communication.

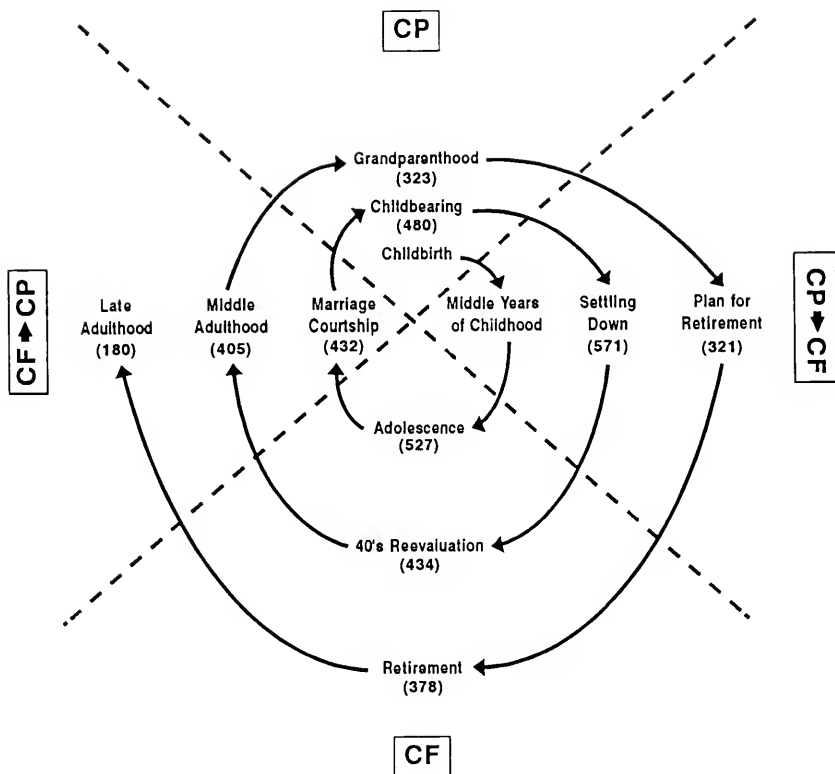


Figure 7. Stress Mean Weighted Sums by Individual Stage on Family Life Spiral Model (each member assigned the family's composite score)

Table 15

Regression Model Testing Quadrant, Cohesion, and Adaptability with Communication as Outcome Variable

Input Variables	df	Type III SS	F-value	p-value
Quadrant	3	4.45	0.96	.42
Cohesion	1	3.93	2.54	.11
Adaptability	1	18.48	11.95	.0009*
Error	78	120.56		

Input Variables	Regression Coefficient	Standard Error of Estimate	t-value	p
Intercept	-2.07	1.12	-1.85	.07
CP Quadrant	0.12	.40	0.30	.77
CP→CF Quadrant	-0.26	.40	-0.66	.51
CF Quadrant	0.39	.40	0.98	.33
CF→CP Quadrant	0.00			
Cohesion	0.04	.02	1.59	.11
Adaptability	0.10	.03	3.46	.0009*

* $p < .05$.

The second pair of equations testing H_3 and H_{10} examined the relationship between quadrant and the discrepancy scores for cohesion and adaptability with the discrepancy scores for communication. Although the model testing for interaction achieved significance, $F_{(11,71)} = 4.45$, $p = .0001$, no interaction was found to be significant. Results of an overall test showed no significant difference between the two models ($F_{obs} = 1.18 < F_{crit(.05,6)} = 2.35$). The more parsimonious equation was then used. The model

testing for main effects was significant, $F_{(5,77)} = 8.15$, $p = .0001$, and predicted 35% ($R^2 = .346$) of the variance in the discrepancy scores on expressive communication. When the regression coefficients for this model were tested for significance, the coefficients for cohesion discrepancy scores and adaptability discrepancy scores were both significant (cohesion discrepancy, $p = .01$; adaptability discrepancy, $p = .02$) (Table 16). The regression coefficients for both were positive and nearly identical in value (0.059 and 0.062). Thus, it can be expected that for every one point increase in discrepancy scores for either cohesion or adaptability, discrepancy scores on expressive communication can be expected to increase .06 of a point. Quadrant failed to achieve significance in the model with a p -value of .0502.

ANOVAS were run to test H_4 , H_5 , and H_6 (Table 17). No significance was found in the equations testing quadrants as predictors of the use of social support or relative and friend support. Quadrant as predictor of cohesion was found to be significant, $F_{(3,80)} = 3.06$, $p = .03$, and accounted for 10% ($R^2 = .1029$) of the variance in cohesion. The regression coefficient had a significant negative value (-7.16 , $p = .01$). Tukey's pairwise comparisons were run to determine the nature of the mean differences. The CP families were found to have more cohesion, CF families less. The mean cohesion score for CP families was 67.0; the mean score for CF families was 59.9 (see Table 7).

There was also a significant difference in quadrant prediction of discrepancy scores on cohesion, $F_{(3,80)} = 4.74$, $p = .004$. Fifteen percent ($R^2 = .1510$) of the variance in the discrepancy scores were accounted for by the quadrant. Tukey's pairwise comparisons showed significant differences between the CF quadrant and both CF→CP and CP→CF quadrants but not between CF and CP quadrants. Mean discrepancy scores on cohesion for the CF quadrant were 8.6, for CF→CP families 3.1 and for CP→CF families 4.4, indicating that there were significantly greater discrepancy scores for the CF quadrant as

Table 16

Regression Model Testing Quadrant and Discrepancy Scores on Cohesion and Adaptability with Communication Discrepancy Scores as Outcome Variable

Input Variables	df	Type III SS	F-value	p-value
Quadrant	3	6.15	2.72	.05
Cohesion (D) ^a	1	5.25	6.96	.01*
Adaptability (D)	1	4.60	6.11	.02*
Error	77	58.01		

Input Variables	Regression Coefficient	Standard Error of Estimate	t-value	p
Intercept	0.50	.22	2.30	.02
CP Quadrant	-.05	.28	-0.17	.86
CP→CF Quadrant	0.65	.28	2.36	.02
CF Quadrant	0.23	.29	0.81	.42
CF→CP Quadrant	0.00			
Cohesion (D)	0.06	.02	2.64	.01*
Adaptability (D)	0.06	.03	2.47	.02*

* $p < .05$.

^a(D) denotes discrepancy scores .

compared to CF→CP and CP→CF quadrants. The mean discrepancy score for the CP quadrant was 6.4.

Equations testing H_6 for both mean and discrepancy scores on the adaptability measure by quadrant were significant, $F_{(3,80)}=2.92$, $p=.04$, and $F_{(3,79)}=3.19$, $p=.03$, respectively (Table 17). Quadrant accounted for 10% ($R^2=.0988$) and 11% ($R^2=.1081$) of

Table 17

ANOVAS for Social Support, Relative and Friend Support, Cohesion, and Adaptability by Quadrant

Input Variable	df	Type III SS	F-value	p-value
<u>Social Support (mean)</u>				
Quadrant	3	65.47	1.09	.36
Error	80	1599.37		
<u>Social Support (discrepancy)</u>				
Quadrant	3	22.89	0.72	.54
Error	80	847.53		
<u>Relative and Friend Support (mean)</u>				
Quadrant	3	23.15	0.35	.79
Error	80	1775.13		
<u>Relative and Friend Support (discrepancy)</u>				
Quadrant	3	13.53	0.26	.85
Error	80	1390.68		
<u>Cohesion (mean)</u>				
Quadrant	3	739.32	3.06	.03*
Error	80	6444.84		
<u>Cohesion (discrepancy)</u>				
Quadrant	3	370.99	4.74	.004*
Error	80	2086.01		
<u>Adaptability (mean)</u>				
Quadrant	3	434.00	2.92	.04*
Error	80	3960.25		
<u>Adaptability (discrepancy)</u>				
Quadrant	3	204.57	3.19	.03*
Error	79	1688.06		

*p<.05.

the variance in mean scores and discrepancy scores on adaptability, respectively, in both models. Tukey's pairwise comparisons determined that CP families had significantly higher scores on adaptability (51.7) than CF families (46.8). CP families also had significantly lower discrepancy scores for adaptability (5.2) than did CF families (8.0). The more adaptable families were, the less discrepant were their perspectives about their adaptability.

Hypotheses Testing

Ten hypotheses were evaluated to test the theoretical assumptions in this study. A series of multiple regression equations and ANOVAS generated p values that led to decisions to either reject or fail to reject the null hypotheses (Table 18).

H_1 states there is no significant difference in the amount of stress reported among families in each quadrant of the family life spiral model. Based on the results of a series of multiple regression equations, no direct significant differences on the outcome variable FILE were determined (Tables 6 and 8). Therefore, no statistical evidence existed to reject null H_1 .

H_2 states that there is no significant difference in types of stress reactions among families in each quadrant of the model. A series of ANOVAS testing each subscale of the FILE by quadrant demonstrated a statistically significant association ($F_{(3,80)} = 5.60$, $p = .002$) between scores on the Pregnancy and Childbearing Strains subscale and quadrants of the model (Table 12). A posthoc pairwise comparison determined the significant difference was between families at CP and CF quadrants ($p = .004$), with the negative value of the estimate indicating that CP families experienced significantly more pregnancy and childbearing strain than CF families. These data supported the rejection of null H_2 .

H_3 states that there is no significant difference in expressive communication among families in each quadrant of the Family Life Spiral Model. In two separate models testing

Table 18

Results of Hypotheses Testing

Hypotheses	Decision
H ₁ : When death of a family member occurs, there is no significant difference in the amount of stress reported among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral.	Fail to Reject
H ₂ : When death of a family member occurs, there is no significant difference in the type of stress reactions among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral.	Reject
H ₃ : There is no significant difference in expressive communication among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral.	Fail to Reject
H ₄ : There is no significant difference in social support among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral.	Fail to Reject
H ₅ : There is no significant difference among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral on measures of family cohesion.	Reject
H ₆ : There is no significant difference among families at CF, CF→CP, CP, or CP→CF phases of the family life spiral on measures of family adaptability.	Reject
H ₇ : There is no relation between levels of family stress and the family's cohesion and adaptability.	Reject
H ₈ : There is no relation between levels of family stress and measures of social support.	Fail to Reject
H ₉ : There is no relation between levels of family stress and measures of communication.	Reject
H ₁₀ : There is no relation between a family's communication and their adaptability and cohesion.	Reject

the relationship between communication and quadrants, no significant differences were found (Tables 15 and 16). Therefore, null H_3 was not rejected.

H_4 states that there is no significant difference in social support among families in each quadrant of the model. Two subscales for social support were tested, the Social Support Index subscale and the Relative and Friend Support subscale. Neither one was found to be significantly associated with any particular quadrant (Table 17). There was, therefore, no evidence to reject null H_4 .

H_5 states there is no significant difference between measures of family cohesion and quadrant on the Family Life Spiral Model. Equations testing the differences for mean as well as discrepancy scores on cohesion by quadrant both yielded significant results (Table 17). Quadrant was found to be a predictor of cohesion ($F_{(3,80)} = 3.06$, $p = .03$), and posthoc comparisons indicated that CP families were found to have more cohesion, CF families less. Discrepancy scores on cohesion were also associated by quadrant ($F_{(3,80)} = 4.74$, $p = .004$), and Tukey's posthoc pairwise comparisons showed significant differences in the discrepancies between CF families and CF→CP and CP→CF, with CF families having significantly greater discrepancies within families. Data from these tests supported the rejection of null H_5 .

H_6 states that there is no significant difference among quadrants on measures of adaptability. Significant differences were found among quadrants on both adaptability mean scores ($F = 2.92$, $p = .04$) and adaptability discrepancy scores ($F = 3.19$, $p = .03$) (Table 17). Tukey's pairwise comparisons indicated that CP families had higher scores on adaptability (51.7); CF families had lower scores (46.8). The CP families also had significantly lower discrepancy scores for adaptability (5.2) than did the CF families (8.0). The more adaptable families were, the less discrepant were their individual perspectives about their adaptability. Data from these tests supported the rejection of null H_6 .

H₇ states there is no relation between levels of family stress and the family's cohesion and adaptability. In the main effects model testing relationship between quadrants and mean scores on cohesion, adaptability, communication, and social support with family stress, a family's mean cohesion score was found to be a significant predictor of their level of stress, $F = 4.47$, $p = .04$ (Table 6). The regression coefficient for cohesion was negative (-9.31), meaning that as a family's cohesion increased, their stress decreased. In a parallel model testing the discrepancy scores of the above variables, cohesion discrepancy scores were also a significant predictor of discrepancy scores on stress ($F = 4.13$, $p = .05$). The regression coefficient was positive, meaning that as discrepancy scores on cohesion increased, the discrepancy scores on stress also increased. Adaptability in both of these models did not prove to be a significant predictor of a family's stress level.

When cohesion and adaptability scores were combined together to determine family subtypes, the analysis showed significant differences between levels of family stress and subtype (Table 11). Seventy-seven percent of the families in the study fell into five family subtypes. The remaining 23% of the families were deleted from this particular analysis. The model was significant ($F = 3.79$, $p = .008$), and Tukey's pairwise comparisons determined that there were significant differences between the stress levels reported by Very Connected-Very Flexible families and both Separated-Flexible and Connected-Flexible families. Data from these tests support the decision to reject this null hypothesis.

H₈ states there is no relation between levels of family stress and measures of social support. Two separate models incorporating two measures of social support, the Social Support Index subscale and the Relative and Friend Support subscale, both failed to achieve significance as predictors of a family's stress (Tables 6 and 8). There was, therefore, no evidence to reject H₈.

H₉ states there is no relation between levels of family stress and measures of communication. Communication as a predictor of family stress was tested in two different

models and not found to be significant (Tables 6 and 8). However, in the model that tested the ability of quadrants and discrepancy scores on expressive communication to predict a family's stress, a significant interaction was found ($F = 3.18$, $p = .03$) between expressive communication discrepancy scores and quadrant in predicting the family's stress (Tables 9 and 10). Therefore, null H_9 was rejected.

H_{10} states there is no relation between a family's communication and their adaptability and cohesion. In the main effects model testing mean scores for adaptability as predictors of expressive communication, adaptability was significant ($p = .0009$), and the positive regression coefficient indicated that as adaptability increased, expressive communication can be expected to increase. Mean cohesion scores were not a significant predictor of communication (Table 15).

However, in the model testing discrepancy scores on cohesion and adaptability as predictors of communication discrepancy scores, both cohesion and adaptability were significant (cohesion discrepancy, $p = .01$; adaptability discrepancy, $p = .02$) (Table 16). The positive values of the regression coefficient for both indicate that as discrepancy scores increase for cohesion and adaptability, discrepancy scores on expressive communication increase. Data from these tests support the rejection of null H_{10} .

Chapter Summary

This chapter has presented discussion of the procedures for the analysis and the results of this research. The outcome of the findings was examined in light of the decision rule to determine the acceptance or rejection of the null hypotheses. The statistical evidence derived from the analysis supported the rejection of hypotheses 2, 5, 6, 7, 9, and 10.

CHAPTER 5 DISCUSSION

It is the great mystery of human life that old grief gradually passes into quiet, tender joys. The mild serenity of age takes the place of the riotous blood of youth. I bless the rising sun each day, and, as before, my heart sings to meet it, but now I love even more its setting, its long slanting rays and the soft, tender, gentle memories that come with them, the dear images from the whole of my long, happy life--and over all the Divine Truth, softening, reconciling, forgiving!

--Fyodor Dostoevsky

Overview of the Study

The purpose of this study was to determine if there are certain times in the family life cycle when experiencing the death of a loved one creates more stress than usual. The theoretical model upon which the study was based was the Family Life Spiral Model which is a three-tiered model representing the evolution of the family life cycle across three generations simultaneously. The characteristics of the model that were of special interest in this study were the opposing centripetal (CP) and centrifugal (CF) forces. The dynamic in the model consists of oscillations back and forth between CP and CF phases in the family life spiral as members face the challenge of mastering the developmental tasks that are relevant to each stage of the family life cycle.

That death has a CP pull on families gave rise to the question of the effect of that CP pull depending upon where families were in the family life spiral--at CP phases, CF phases, or at the transitions between CP and CF phases, CP→CF or CF→CP. Because other variables were deemed to be significant predictors of the impact of death on the family and believed potentially to vary depending upon the phase of the life spiral, they were also

included in the assessment. Those variables were expressive communication, social support, cohesion, and adaptability.

By analyzing these variables through a multiple regression model, it was possible to hold one or more of the independent variables constant in order to determine the significance of a single variable. It was also possible to determine if two variables interacted with one another in predicting the variance in the dependent variable.

Three questions were of primary interest. First, is there a difference in impact, both in degree and type of stress, reported by family members at different phases of the family life spiral when there is a death in the family? Second, how do the levels of disagreement among family members vary among phases? And third, do family members at different life spiral phases differ in levels of expressive communication, social support, family cohesion, and family adaptability? Answers to these questions will be helpful for those professionals who work with families facing the loss of a loved one and who can identify families at high risk so that preventive measures might be taken.

Research Sample

Eighty-four families who had experienced the death of a loved one who had been a patient of the Hospice of North Central Florida participated in the study. All families in the 11-county service area who were on the mailing list to receive Hospice bereavement literature were contacted by mail 1 month before the 1-year anniversary of their loved one's death informing them about the study and inviting their participation. Follow-up phone calls to each of those families approximately 2 weeks later assessed willingness to be included in the study as well as appropriateness of family configuration for participation. Twenty-three percent of the families contacted agreed to participate, 23% declined to participate, 33% were inappropriate (living alone, not in a usable family configuration, or as quadrants filled, unnecessary for the sample), and 21% could not be reached (not at home, phone disconnected, and/or no phone number was available). The final return rate

(return/appropriate and reached) was 50%. There was a minimum of 20 families per quadrant of the Family Life Spiral Model, for a total of 84 families.

Finding a sufficient number of participant families in the CP quadrant was difficult. When the characteristics of the two stages composing this quadrant are examined, childbearing and grandparenthood, some theoretically relevant explanations for the difficulty can be suggested. First, couples at the childbearing stage are generally in their 20s or early 30s and the chances that they would experience the death of a spouse or a child are statistically much smaller than at later ages. Furthermore, if they did experience the death of a partner, only one spouse would remain, and the children would probably be too young (i.e., 12 or under) to be included as participants. Also, it is unlikely that a childbearing-stage couple would experience the death of one of their parents, given that their parents would only be in their 40s and 50s, another age range where death is less frequent. Second, the family life spiral theory proposes that CP families at the childbearing stage have tight external boundaries which limit outside influence upon the nurturance of their young children. As anticipated, when the assessment process involved in this study was explained as an in-home visit, the majority of the potential participants for this particular quadrant declined to participate. They were quite willing to participate by mail, however. Finally, fewer of the losses experienced by childbearing families were of parents than in other quadrants; rather, the deaths were more often that of grandparents and siblings in this quadrant than in the others.

The other phase of the CP quadrant included in the study, grandparenthood, consisted of people whose children were all launched and their oldest grandchild was between the ages of 0 to 5. Theoretically the grandparents would be approximately 50 years old. However, it was often found that by the time all of a couple's children were launched, their oldest grandchild was over the age of 5. Furthermore, it was not at all uncommon for single young adults to still be living at home in their early 20s. Nor was it

uncommon to find couples who were certainly ready to have grandchildren but whose children had decided not to have children or were delaying childbearing. Seven of the CP families were at grandparenthood stages; all except one experienced the death of a parent.

Differences in how emotionally close study participants were to the deceased were minimized in that 75 of the 84 families included the primary caregiver for the patient. Most of those caregivers were adult children caring for a dying parent. Only 16 of the 180 participants had lost their spouse. Fourteen of those 16 were wives who had lost husbands and were now living with one of their children; only two husbands who had lost wives were living with adult children. The imbalance of spouses represented is likely due to the fact that widows and widowers living alone could not participate in the study because of the definition of family that was used. Thus, spouse caregivers were less likely to be included in the study unless they had combined residence with other family members. In this study there were more widows who were living with an adult child than widowers. The likely reason for the gender imbalance among spouses is that the life expectancy is greater for women than men, and, too, we might suspect that more widows go to live with adult children than do widowers.

One might expect that overall differences between generations as to their perspectives on the individual variables in question might be a factor in these results. However, the quadrants that had a significant percentage of the participants representing two different generations in the family, CF→CP (50%) and CF (82.6%), were quite different in the amount of discrepancy between them. There were significant differences between quadrants on cohesion and adaptability discrepancy scores, with the highest discrepancy scores in the CF quadrant which are likely due to the presence of adolescents in that quadrant. The CF→CP quadrant had the lowest discrepancy scores on cohesion and nearly the lowest on adaptability. Differences between generations of adults (largely in

CF→CP quadrant) did not appear significant, but differences between adolescents and older generations were quite pronounced (CF quadrant).

Relationship Between Quadrants in the Model and Family Stress

Quadrant, or life spiral phase, was the independent variable of primary interest in this study. Means, discrepancy scores, standard deviations, and frequencies of responses for individual items in the assessment packet were all computed by quadrant. In a visual check of the quadrant means for family stress (Figure 8), the CP→CF quadrant had the highest mean scores (464.7) and CF→CP the lowest (389.0). The differences were not statistically significant, however, in the regression model testing quadrant, communication, cohesion, adaptability, and social support with stress as the outcome variable (Tables 6 and 8). Therefore, the results of this analysis did not support the rejection of H_1 . However, later discussion will show the indirect effects of the quadrant's significance as a predictor for stress after controlling for cohesion (see Relationship Between Cohesion and Stress).

That the greatest stress occurred in the transitional phase (CP→CF) where momentum is increasing towards a CF phase is intriguing. It would seem that more stress is placed upon the family being pulled away from the CP phase towards developmental tasks associated with CF phases than those families who are already CF when death of a family member occurs. The pull back to CP developmental tasks appears to be less stressful at CF than at CP→CF phases.

Family members gradually begin moving towards differentiation from one another in the CP→CF phase. At the "settling down" stage, children enter school and are exposed to other rules and ways of being. They become involved in outside activities which help them develop skills and abilities that set them apart from other family members. As parents' time is freed up somewhat, they have more time for outside interests than at CP stages. At the "planning for retirement" stage, couples are reassessing their career goals

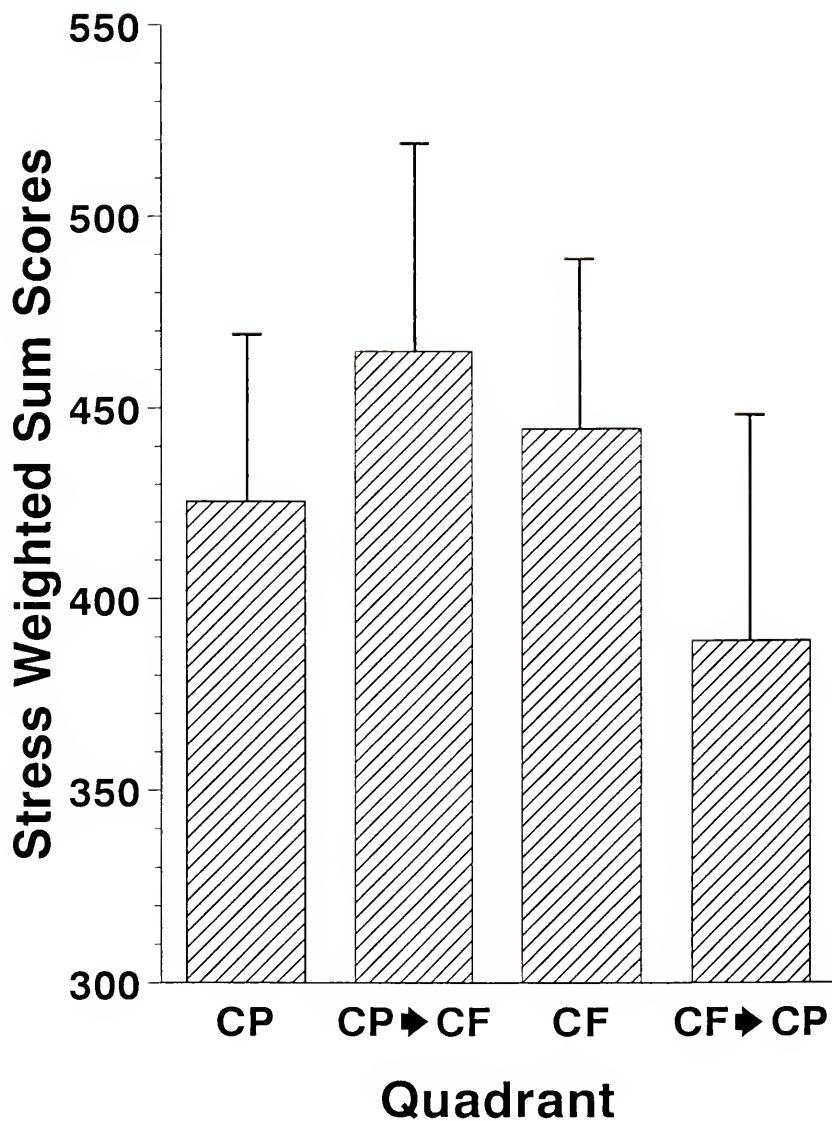


Figure 8. Family Stress by Quadrant (lines atop each bar represent Standard Error Bars)

and establishing financial security that allows them to plan for separation from the work force. They are beginning to redirect some of their energies towards other interests.

This validates the literature cited earlier regarding the difficulty of transition periods in the life cycle. When the system is already in flux at transition stages, the family is more vulnerable to the effects of additional stressors at those times (Golan, 1978; Haley, 1973; Hoffman, 1988; Ireys & Burr, 1984; McCubbin & Patterson, 1983; Rapaport, 1962; Rolland, 1990; Stanton, 1978; Walsh & McGoldrick, 1987). The stressor of death seems to create more additional stress for families at the CP→CF transition than at the CF→CP stage, presumably due to the developmentally backward CP pull of death. That pull is contrary to the momentum in force at CP→CF phases but not at CF→CP phases.

An examination of the most frequent strains and stressors reported by families overall and by quadrant (Tables 19 and 20) points out some interesting similarities and differences. Each of the quadrants checked the following as one of their top 10 stressors: "A parent/spouse died," "Death of a husband's or wife's parent or close relative," "Increase in the number of tasks or chores which don't get done," and "A member purchased a car or other major item." All the quadrants except CP→CF listed "A member appears to have emotional problems." The CF quadrant was the only quadrant not to list "Increase in the number of problems or issues which don't get resolved" as one of their top 10 stressors.

The CP quadrant had more strains than stressors. Top stressors for this quadrant that were unique to these families were "Increased disagreement about a member's friends or activities" and "Parent/spouse became seriously ill or injured." "Decrease in satisfaction with job/career" was listed as a top stressor for this quadrant as it was in the CP→CF quadrant.

The CP→CF quadrant had more stressors than strains when compared to the other quadrants and more work-related items than other quadrants. This is in accordance with career development theories that indicate the "settling down" stage of the life cycle as a time

Table 19

Top Stressors for Families

Item	Weight	Percent
58. <i>Death of husband's or wife's parent or close relative</i>	48	80%*
56. <i>A parent/spouse died</i>	98	75%*
16. Increase in the number of tasks or chores which don't get done	35	62%*
32. <i>A member purchased a car or other major item</i>	19	52%*
3. A member appears to have emotional problems	58	46%*
15. Increase in the number of problems or issues which don't get resolved	15	43%*
50. <i>Close relative or friend of the family became seriously ill</i>	44	39%*
6. Increase in arguments between parent(s) and child(ren)	45	37%
17. Increased conflict with in-laws or relatives	40	35%
35. Increased strain on family "money" for food, clothing, energy, home care	21	35%*
45. <i>A member was promoted at work or given more responsibilities</i>	40	35%
59. <i>Close friend of the family died</i>	47	35%*
65. <i>A member moved back home or a new person moved into the household</i>	42	35%*
34. Increased strain on family "money" for medical/dental expenses	23	33%
43. Decrease in satisfaction with job/career	45	32%*
48. <i>Parent/spouse became seriously ill or injured</i>	44	31%

Table 19--continued

Item	Weight	Percent
14. Increased disagreement about a member's friends or activities	35	30%
38. <i>A member changed to a new job/career</i>	40	30%
41. <i>A member started or returned to work</i>	41	29%
26. <i>Took out a loan or refinanced a loan to cover increased expenses</i>	29	27%
13. <i>Increase in the amount of "outside activities" which the child(ren) are involved in</i>	25	26%
44. A member had increased difficulty with people at work	32	26%
39. <i>A member lost or quit a job</i>	55	24%
5. Increase in conflict between husband and wife	53	24%
33. Increasing financial debts due to over-use of credit cards	31	23%
54. Increased responsibility to provide direct care or financial help to husband's and/or wife's parent(s)	47	21%
61. <i>A member "broke up" a relationship with a close friend</i>	35	21%
7. Increase in conflict among children in the family	48	20%
2. Increase of wife/mother's time away from family	51	20%

*On list of top 10 stressors by at least two quadrants

Note: *Stressors are in italics*; strains are in regular type.

Table 20

Top Ten Stressors by Quadrants

Number of Item	Weight	Percent
<u>CP Quadrant</u>		
58. <i>Death of husband's or wife's parent or close relative</i>	48	23
56. <i>A parent/spouse died</i>	98	19
16. <i>Increase in the number of tasks or chores which don't get done</i>	35	14
32. <i>A member purchased a car or other major item</i>	19	13
17. <i>Increased conflict with in-laws or relatives</i>	40	11
3. <i>A member appears to have emotional problems</i>	58	10
15. <i>Increase in the number of problems or issues which don't get resolved</i>	45	10
14. <i>Increased disagreement about a member's friends or activities</i>	35	8
43. <i>Decrease in satisfaction with job/career</i>	45	8
48. <i>Parent/spouse became seriously ill or injured</i>	44	8

Table 20--continued

Number of Item	Weight	Percent
<u>CP→CF Quadrant</u>		
56. <i>A parent/spouse died</i>	98	21
58. <i>Death of husband/s or wife's parent or close relative</i>	48	19
16. <i>Increase in the number of tasks or chores which don't get done</i>	35	15
50. <i>Close relative or friend of the family became seriously ill</i>	44	14
15. <i>Increase in the number of problems or issues which don't get resolved</i>	45	12
32. <i>A member purchased a car or other major item</i>	19	12
43. <i>Decrease in satisfaction with job/career</i>	45	12
44. <i>A member had increased difficulty with people at work</i>	32	12
45. <i>A member was promoted at work or given more responsibilities</i>	40	11
59. <i>Close friend of the family died</i>	47	11
65. <i>A member moved back home or a new person moved into the household</i>	42	11

Table 20--continued

Number of Item	Weight	Percent
<u>CF Quadrant</u>		
58. <i>Death of husband's or wife's parent or close relative</i>	48	23
56. <i>A parent/spouse died</i>	98	21
16. <i>Increase in the number of tasks or chores which don't get done</i>	35	19
13. <i>Increase in the amount of "outside activities" which the child(ren) are involved in</i>	25	15
3. <i>A member appears to have emotional problems</i>	58	14
6. <i>Increased disagreement about a member's friends or activities</i>	45	14
32. <i>A member purchased a car or other major item</i>	19	13
35. <i>Increased strain on family "money" for food, clothing, energy, home care</i>	21	13
50. <i>Close relative or friend of the family became seriously ill</i>	44	13
61. <i>A member "broke up" a relationship with a close friend</i>	35	13

Table 20--continued

Number of Item	Weight	Percent
<u>CF→CP Quadrant</u>		
58. <i>Death of husband's or wife's parent or close relative</i>	48	15
32. <i>A member purchased a car or other major item</i>	19	14
3. A member appears to have emotional problems	58	13
16. Increase in the number of tasks or chores which don't get done	35	13
56. <i>A parent/spouse died</i>	98	13
34. Increased strain on family "money" for medical/dental expenses	23	12
15. Increase in the number of problems or issues which don't get resolved	45	11
38. <i>A member changed to a new job/career</i>	40	11
65. <i>A member moved back home or a new person moved into the household</i>	42	10
35. Increased strain on family "money" for food, clothing, energy, home care	21	8
59. <i>Close friend of the family died</i>	47	8

Note: *Stressors are in italics; strains are in regular type.*

for establishing oneself in a career. Major stressors in this quadrant included the serious illness of a close relative or friend of the family (which was reported more frequently than was the case in CP or CF→CP families). Eleven percent of the families in this quadrant reported the decision of a family member to return home or a new person moving into the household (which was similar to the percent reported in the CF→CP quadrant) and the death of a close family friend (which was not reported as a major stressor in the other quadrants). They were also the only quadrant that reported the death of a close family friend as a top stressor.

The CF quadrant, as might be expected with adolescents in the family, had stressors and strains unique to it. "Increase in the amount of 'outside activities' which the child(ren) are involved in," "Increased disagreement about a member's friends or activities," and "A member 'broke up' a relationship with a close friend" were 3 of the top 10 stressors for this quadrant.

The CF→CP quadrant had stressors unique to it: "Increased strain on family 'money' for food, clothing, energy, home care" and "A member changed to a new job/career."

These results are quite different than was expected based on those obtained by Olson (McCubbin & Thompson, 1991) in his study of normal families across the life cycle (Table 1). The higher scores in Olson's sample for nearly all the individual stages of the family life cycle except for the "settling down" stage are due to an older and lengthier version of the FILE (Form A) being used at the time of that study which is not comparable to Form C used in this study. It is significant, however, that the means for each of the stages in Olson's analysis are higher than the corresponding stages in this study, except for the families in the "settling down" stage. In this study that stage had significantly higher scores on FILE than the other stages. It would appear that this is a more stressful time to lose a loved one than any other stage.

When the quadrants were differentiated into the two or three individual stages of the family life cycle which constituted each life spiral phase, some very interesting differences are noted (see Figure 7). The scores for each stage of the family life cycle are higher for each initial pass (beginning at adolescence) through each phase in the life spiral model, with each successive oscillation generating less stress than the previous one. The only exception in this study is a very high score for a stage that was added to the model (but not illustrated) ("greatgrandparenthood") because of the inclusion in the study of two greatgrandmothers who were 88 and 93, respectively, and who were living in families that had experienced inordinate crises in the previous year. The mean of the family's weighted sums in both of those families is exceptionally high and the low number of families in that stage ($n = 2$) does not make this a reliable or stable cell. Clearly, individuals experienced less stress with each pass through the life spiral phases.

One of the points made about the oscillations between CP and CF phases is that the developmental tasks associated with each are quite different. From this model, it appears that when families are faced for the first time with developmental tasks of nurturance and intimacy requiring cohesion and tight boundaries, more stress is generated than at the next stage requiring those same developmental tasks. The same is true of families with adolescents confronted with the developmental tasks of autonomy and differentiation requiring a loosening of those previously appropriate external boundaries. There is more stress the first time these tasks are faced than when the next successive revolution occurs. There is also the factor that the later in the life cycle that a death occurs (both for the individual experiencing the loss as well as the age of the deceased), the more likely it is "on time" and, therefore, less stressful (Herz, 1980; Neugarten, 1976; Rolland, 1990; Walsh & McGoldrick, 1987).

The above observations regarding reduced stress with each pass through the life spiral confirms the reasoning behind Olson's definition of the stage of the family's life

cycle as determined by the age of the oldest child. The most stress is generated the first time the family faces the developmental tasks required for the successful raising and launching of the child and lessens with each successive child (Olson et al., 1989).

Through examination of the differences between these individual stages of the family life cycle in an ANOVA, three of the stages had significant t-values, "childbearing" ($p = .02$), "settling down" ($p = .002$), and "40s reevaluation" stages ($p = .04$). It should be noted here that the scores used in this analysis are each individual's total weighted sum score on the FILE. Because 46% of the assessed families crossed two generations (meaning that the assessment was not based on the input of two people from the same generation but rather one from one generation and the other from another generation in the same quadrant), "family" scores could not be used to determine these differences.

Tukey's pairwise comparisons determined a significant difference between the "settling down" stage and the "planning for retirement" stage. This difference is theoretically significant in that both of these stages are within the same quadrant in the model, yet they differ significantly in the amount of stress family members at each stage experienced after the death of a loved one. Further examination revealed that of the 11 families at the "settling down" stage, all had experienced the early death of a parent; the average number of years short of the parent's life expectancy was 7.64, with the mean age of parental death at 67.36. Of the 6 families at the "planning for retirement" stage, 5 had lost parents and one a child. The mean age of the deceased parent at this stage was 77.4, 2.4 years greater than their life expectancy. The deceased child was 39 at time of death, 36 years short of the life expectancy. Clearly, the loss of a parent at the "settling down" stage was more "off-time" than at the "planning for retirement" stage and may be a factor contributing to the high stress at this stage of the family life cycle.

Overall, however, premature death does not seem to correlate with the stress levels that are seen by quadrants. The greatest number of premature deaths occurred in the

CF→CP quadrant, with the average age at time of death being 62, yet this quadrant had the lowest stress. In the CF quadrant, the mean age at time of death was 65; for CP→CF families, 69 (the quadrant with the highest stress); and for the CP quadrant, the mean was 73.

Statistical analysis of the mean discrepancy scores for stress by quadrants did not prove to be significant, although the mean discrepancies for CF families (9.18) differed the most from CP families (6.02). Eighteen of the 23 families in the CF quadrant included an adolescent. This is in keeping with Olson's research (1989) that found widely discrepant views between adolescents and their parents on the FILE. Olson theorized that the level of family stress may be elevated due to these discrepant perspectives between adolescents and parents, and although elevated in this study, the discrepancy did not prove to be a significant predictor of the family's stress. Is it possible that the CP pull of death on the family increased the cohesion, adaptability, and communication in this sample such that there were smaller discrepancies than would normally be present? None of the discrepancy score measures independently predicted family stress levels. However, there was an interaction between quadrants and the discrepancy scores for communication in predicting family stress which will be discussed in the following section.

Relationship Between Quadrants and Expressive Communication

In the regression model testing the ability of quadrant location to predict expressive communication scores in the family, quadrant location was not found to be significant (Tables 15 and 16). Therefore, H_3 was not rejected. Mean scores for each quadrant were 5.97 (CP), 5.56 (CP→CF), 5.46 (CF), and 5.82 (CF→CP).

Does experiencing a death alter the communication styles of these families in some fashion? Or does communication style alter the stress experienced, or the stress alter the communication style? Not having assessed the families prior to the death, those questions cannot be answered with conviction. However, it is possible that CP families were

developmentally more in synchrony with the CP pull of death and that their communication was more expressive. The recent births may have served as a reminder of the cycle of life and death and may thereby have normalized death, taking discussion about it out of the realm of the taboo. Death in a home setting is an intimate time for families, a time of physical and emotional closeness. Families attuned to the intimacies associated with childbirth may feel more of an ability to be open about death than other families.

By contrast, families at other phases were removed from tasks requiring intimacy and nurturance. Because their members focus on developmental tasks associated with autonomy and differentiation, they may find the prospect of engaging in intimate conversation about death and dying incongruous. Developmentally, it is certainly characteristic of adolescents to be uncommunicative with family members about taboo subjects such as sex and death (Berman et al., 1988; Coleman et al., 1986; Elizur & Kaffman, 1983). Furthermore, adults at the "40s reevaluation" stage in midlife are often pained with facing their own mortality; when confronted with the death of the last surviving parent, they are thrust into the "next" generation to die. Talking about death and dying under such conditions suddenly becomes less abstract and more concrete, taking on many very personal implications.

Quadrant was not a significant predictor of the discrepancy in expressive communication scores for families in the regression model testing quadrant and discrepancy scores for cohesion and adaptability as predictor variables. Given that the p -value was .0502, it is possible that had there been more power in the study (increased sample size or perhaps decreased variability in the population by controlling for initial variance through a covariate measure such as stress before death) statistical significance would have been achieved.

In the interaction model testing the capabilities of quadrant and the discrepancy scores on all the independent measures to predict family stress, a significant interaction

between quadrant and the discrepancy in expressive communication scores was found ($F = 3.18, p = .03$) (see Figure 6). When the regression coefficients were tested, a significant difference was found between the CP→CF and CF quadrants. When quadrant was controlled, there was a significant difference between discrepancy scores on communication and family stress levels. As communication discrepancy scores increased for CP→CF families, there was a corresponding increase in the stress scores. However, for CF families, as communication discrepancy scores increased, the stress levels decreased. These results can be explained by the nature of the differences between families at these two stages. For the most part CP→CF families are still bound to one another and are less likely to have outside sources of support, so when their communication patterns are perceived discrepantly, those differences contribute to increased stress. On the other hand, CF families have more discrepant scores but are disengaged from one another and rely more on outside sources of support. Their expectations of one another are lower; therefore, their stress is lower. Examination of the means indicates that the CF→CP quadrant had both the lowest stress (389.0) and the lowest discrepancy on communication (.97). The CP→CF quadrant had the highest stress (464.7) and the second highest communication discrepancy scores (1.64).

Relationship Between Quadrants and Cohesion

Cohesion was found to vary significantly by quadrant (Table 17). CP families were found to have more cohesion and CF families less. The mean score for CP families on the cohesion scale was 67.0 and for CF families the mean was 59.9 (Figure 9). This confirmed the findings of Olson et al. (1985) that showed cohesion to drop significantly as adolescents begin to separate from the family (see Figure 3) but differed from his results that showed married couples without children had the highest levels of cohesion. In this study those couples would be in the CF→CP quadrant which had a mean cohesion score of

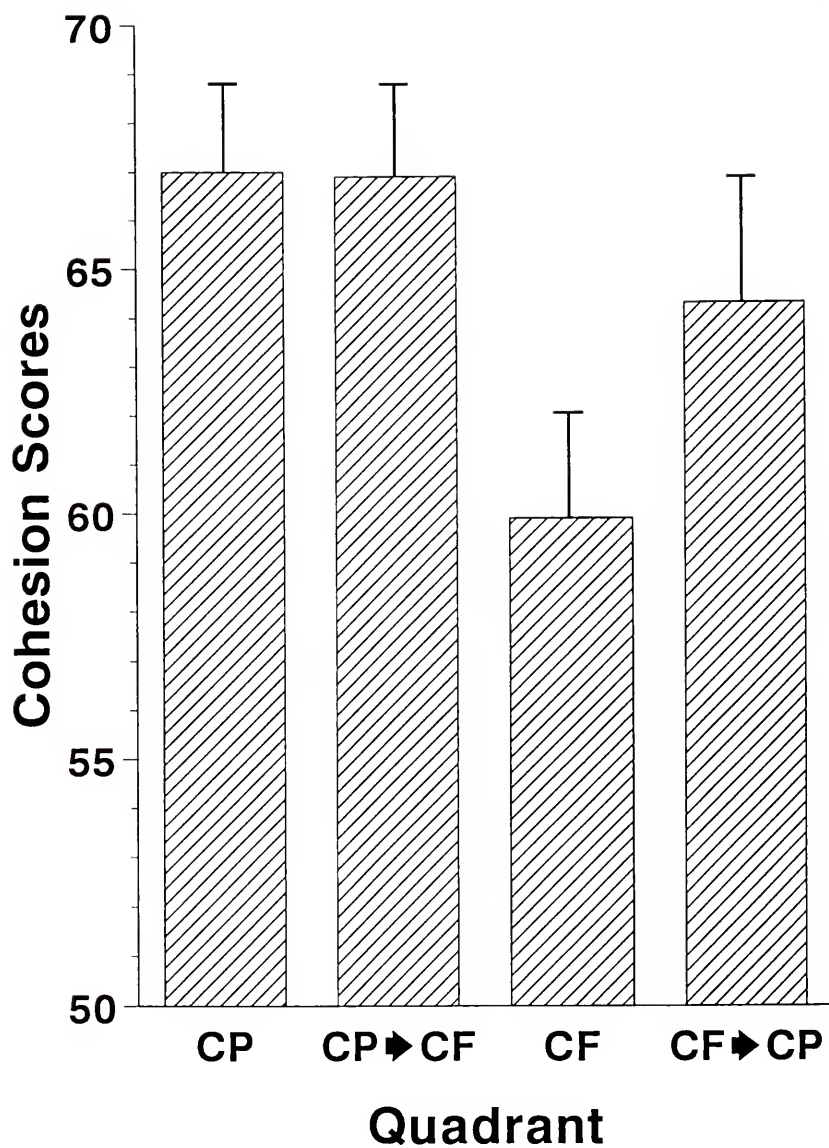


Figure 9. Cohesion Mean Scores by Quadrant

64.3, about midrange. Jordan's findings (1991) of low cohesion at adolescent stages were also corroborated.

Discrepancy scores on cohesion were also found to be significantly different among quadrants. The means for each quadrant were 8.6 for CF families, 6.4 for CP families, 4.4 for CP→CF, and 3.1 for CF→CP (Figure 10). As the theory suggests, CF families had greater discrepancies than did other families, largely due to the inclusion of adolescents in 17 of the 23 families in this quadrant. Adolescents view their families as much less close than do their parents (Olson et al., 1989), which often seems to be a necessity in order for them to differentiate appropriately from their families. However, this analysis indicated that CF quadrants differed significantly from CP→CF and CF→CP quadrants, but not so with CP quadrants. These findings are similar to those of Olson et al. (1989) who found both the most cohesion and the most discrepancy on cohesion scores between couples (not families) in the early stages of marriage and childbearing.

Relationship Between Quadrants and Adaptability

Adaptability by quadrant was significant both for mean and discrepancy scores (Table 17). A preplanned test of the differences between CP and CF families achieved significance with CP families being significantly higher on adaptability than CF families. Mean scores for all four quadrants were CP (51.7), CP→CF (51.4), CF (46.8), and CF→CP (52.4) (Figure 11). That families in CF stages are less adaptable and flexible than other families was demonstrated in Olson's study (1988) and corroborated here. In fact, adaptability seems to hardly vary except in the CF quadrant. It does seem to point out that adaptability is not a strong predictor of stress, however, in that the quadrant with the most stress, CP→CF, did not exhibit any less adaptability than the CP or CF→CP quadrants.

The CF families were significantly more discrepant on adaptability scores than any other quadrant with a mean of 8.0. The other scores by quadrant were CF→CP (4.6), CP (5.2), and CP→CF (4.1) (Figure 12). This is in keeping with Olson's (1988) findings that

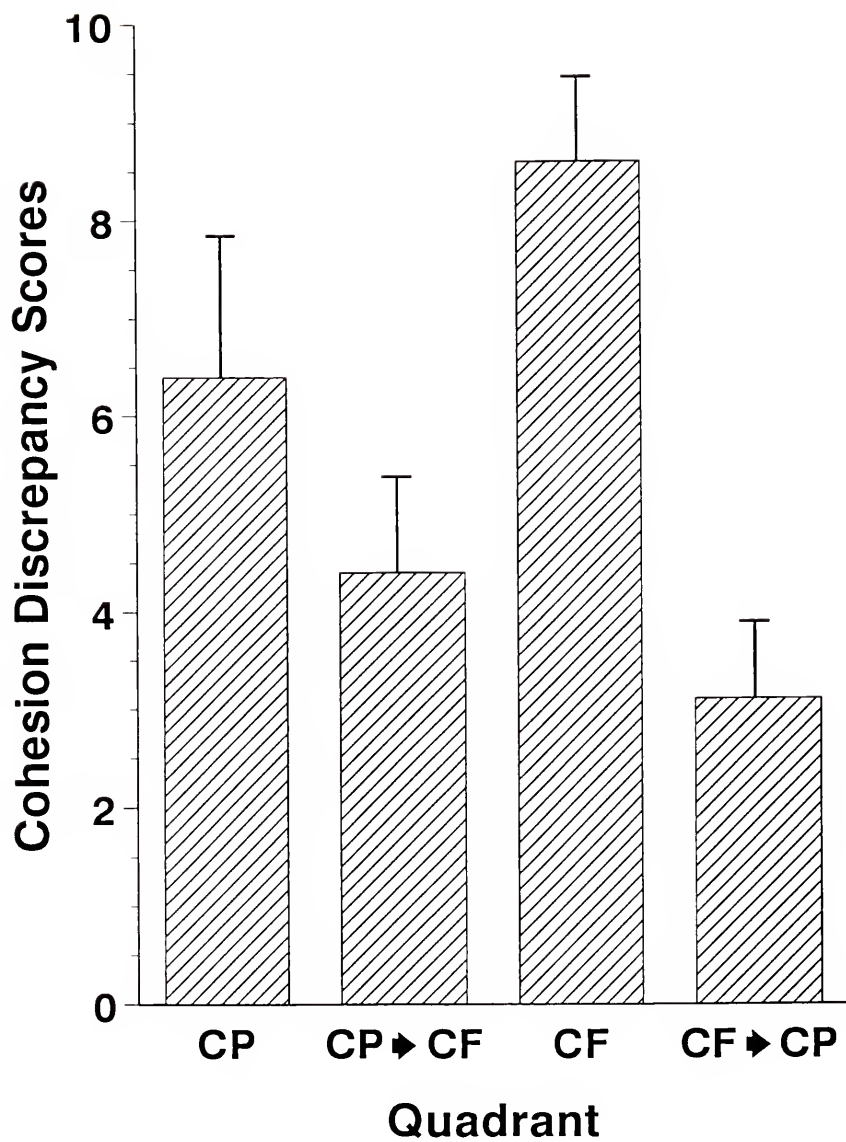


Figure 10. Cohesion Mean Discrepancy Scores by Quadrant

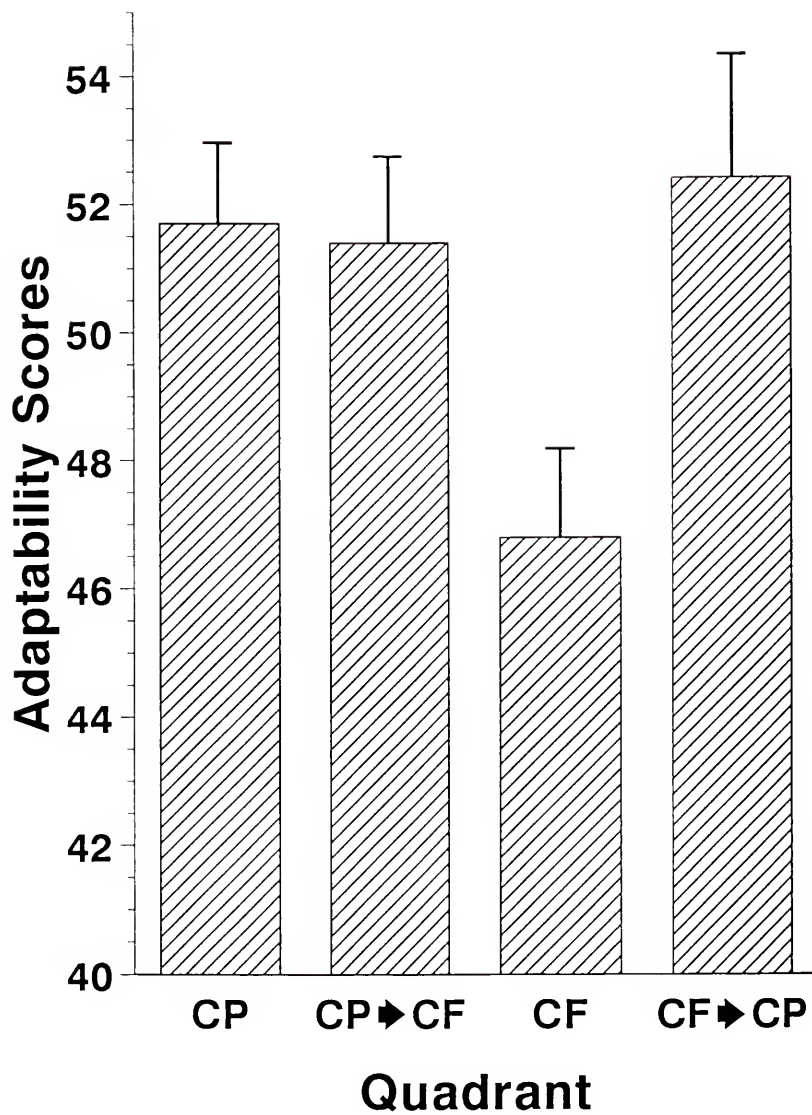


Figure 11. Adaptability Mean Scores by Quadrant

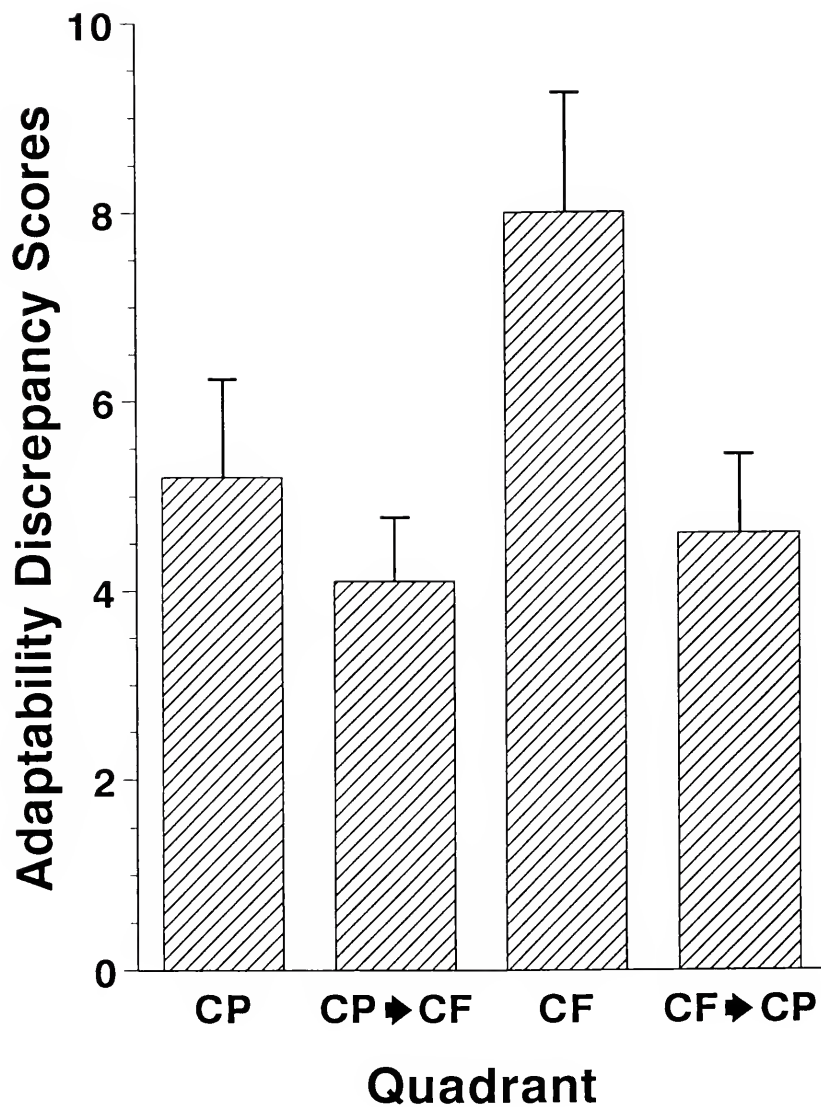


Figure 12. Adaptability Mean Discrepancy Scores by Quadrant

families with adolescents will have significantly greater discrepancies than families at other stages of the family life cycle.

Relationship Between Quadrants and Social Support

The social support literature pertaining to families' adaptation to the stress of death in the family life cycle suggested that families who utilized family support also utilized social support (Cohen et al., 1977; Olson et al., 1983). Those studies were questioned initially because they were contrary to the theoretical model behind the Family Life Spiral Model which described CP families as having tight external boundaries in order to filter outside influence selectively. Although analyses of the use of social support in this study did not find any significant differences in the use of social support by quadrants, the trends were certainly contrary to the above-cited research studies. There was very little difference across quadrants in the use of social support, either through the Social Support Index or the Relative and Friend Support subscale, except that for both of those measures the CP families scored the lowest (see Table 7).

Summary of Quadrant Effects

Significant differences by quadrants were found for measures of cohesion and adaptability, both for the mean scores and the discrepancy scores. The CP families had the highest cohesion scores and were significantly different from CF families on adaptability. The CF→CP families were the most adaptable. The CF families had the lowest scores on cohesion and adaptability and the highest discrepancy scores on both measures. Although there were no significant differences between measures of stress, communication, and social support by quadrant, mean scores indicate that CP→CF families had the highest stress, CF→CP families the lowest. There was also a significant interaction between quadrant and discrepancy scores on communication in predicting family stress levels.

Relationship Between Communication and Stress

Three different regression models tested measures of communication as predictors of stress. In the first two, communication did not predict stress, nor did discrepancy scores on communication predict discrepancy scores on stress. However, in the third regression model, the interaction model showed a significant interaction between communication discrepancy scores and quadrant in predicting family stress (Tables 9 and 10). There was a strong positive relationship between communication discrepancy scores and stress levels between the CP→CF and CF quadrants, as discussed previously in the section "Relationship Between Quadrants and Expressive Communication."

The lack of a stronger relationship between communication and stress is contrary to the hypotheses generated by the theoretical literature. It is possible that significance might be achieved had the bereaved sample been a non-Hospice sample, in that one of the benefits of Hospice involvement is helping families to communicate with one another about all facets of the death and dying process.

Relationship Between Cohesion and Stress

Cohesion was a significant predictor of a family's stress in this study--the lower the mean score, the higher the stress, and the greater the discrepancy score, the greater the discrepancy in stress. The lower cohesion families experienced, the higher their stress levels. The CP families had the most cohesion (67.0) with CP→CF families nearly the same (66.9). The CF families scored 59.9 and CF→CP families scored 64.3. Stress levels by quadrants are as follows: CP (425.5), CP→CF (464.7), CF (444.5), and CF→CP (389.0). Indirectly, then, it can be deduced that quadrant is a significant predictor of family stress levels when cohesion is controlled. Although there is no direct effect on stress between quadrants, there is an indirect effect through cohesion.

It is, therefore, quite intriguing that the quadrant with the most stress, CP→CF, had comparatively high cohesion. Despite their cohesion, the stress experienced after the

death of a loved one was still greater than for any other quadrant. Perhaps the family cohesion necessitated by the death of a loved one counteracted the CF thrust appropriate to the family phase, and, as a result, more stress was generated. This seems to be the most significant indicator that the CP pull of death creates more difficulties for families at this phase (i.e., experiencing the CF pull outward) than any other. This observation lends credence to the theory-based notion that the "settling down" stage within the CP→CF quadrant is predicted to be the most stressful time in the family life cycle to lose a loved one. Despite being cohesive, adaptable, and skillful in using social support and relative and friend support, the families in this quadrant reported high stress after the death. However, these families may also be the most resilient because of the resources available to offset the stress.

There was a significant relationship between the discrepancy scores for cohesion and stress measures. As discrepancy scores on cohesion increased, there was a corresponding increase in the stress discrepancy scores (Figure 13). The differences between cohesion and stress discrepancy scores for CP and CF quadrants were negligible but considerably greater for the transitional quadrants, CF→CP and CP→CF. When the families were in flux, so were their perspectives on different measures. What is more significant theoretically is that the discrepancy scores on cohesion were the only discrepancy scores that were statistically significant in predicting stress discrepancies.

Relationship Between Adaptability and Stress

Although there were significant differences in adaptability by quadrants, adaptability by itself was not a significant predictor of the amount of stress families experienced. Examination of the descriptive statistics reveals that CF families had the lowest adaptability mean scores, the highest discrepancy scores for adaptability, and one of the highest stress scores. On the other hand, the quadrant with the most stress, CP→CF, had high adaptability mean scores and low adaptability discrepancy scores, once again

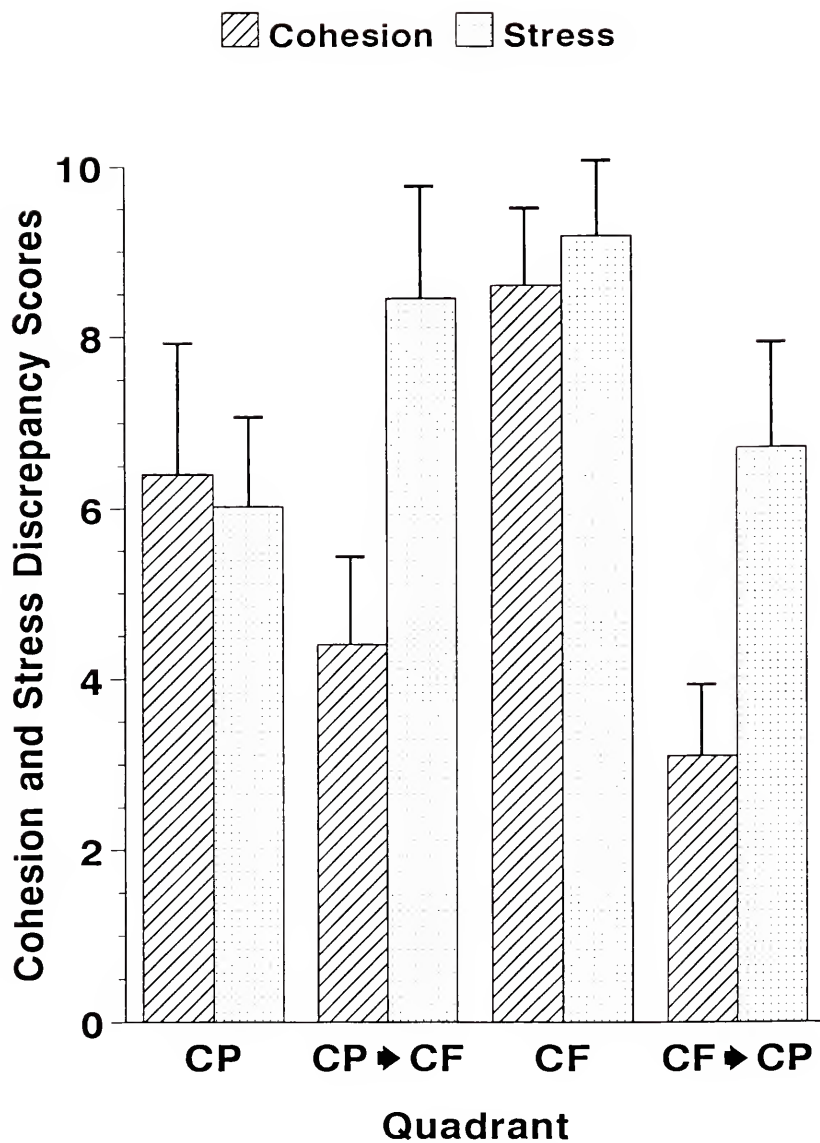


Figure 13. Cohesion and Stress Mean Discrepancy Scores by Quadrant (scales are not equivalent for cohesion and stress)

indicating that despite being adaptable in the face of the death of a loved one, those factors did not alter the amount of stress that followed. Whether or not it was a factor in how they coped with the loss and the ensuing stress cannot be determined since measures of family well-being were not included.

Relationship Between Family Subtypes and Amount of Stress

Olson's research (1991) has shown that the interaction between a family's cohesion and adaptability accounts for some of the differences in the family's response to stressful life events. Differing levels of cohesion and adaptability combine to group families into 16 different subtypes (Appendix I).

Combining the scales for cohesion and adaptability in this study produced five subtypes that were the most frequent (Table 21). Connected-Flexible families accounted for 25% of the sample, 23.8% were Very Connected-Very Flexible, 11.9% were Separated-Flexible, 9.5% were Separated-Structured, 8.3% were Very Connected-Flexible and 21.5% fell into 8 other subtypes (Figure 14). Based on the subtypes, family types were determined, ranging from Balanced to Moderately Balanced, to Midrange, to Extreme. In this sample, 25% of the families were Balanced, 42% were Moderately Balanced, 27% were Midrange, and 6% were Extreme.

Significant differences were found between the five family subtypes that were the most frequent in this study and the amount of stress reported by each. Levels of stress between Very Connected-Very Flexible families were significantly different from both Separated-Flexible families as well as Connected-Flexible families. The mean for Separated-Structured (506) was considered unstable due to small cell size ($n = 8$). The bar graph (Figure 15) makes it more visually clear that there is a relationship between decreasing levels of cohesion and adaptability and the increase in stress. Did the increased stress produce lower levels of cohesion and adaptability, or did lower levels of those two measures lead to increased stressors? Without a longitudinal study, it is impossible to

Table 21

Family Subtypes by Quadrant

Family Subtype	CP	CP→CF	CF	CF→CP	Percent
<i>Very Connected/Very Flexible</i>	7	5	2	6	23.8
<i>Very Connected/Flexible</i>	2	3	1	1	8.3
Very Connected/Structured	0	0	0	1	1.2
Very Connected/Rigid	0	0	0	0	0
Connected/Very Flexible	1	0	1	2	4.8
<i>Connected/Flexible</i>	4	8	6	3	25.0
Connected/Structured	1	1	1	1	4.8
Connected/Rigid	0	0	1	0	1.2
Separated/Very Flexible	0	0	0	0	0
<i>Separated/Flexible</i>	3	1	3	3	11.9
<i>Separated/Structured</i>	2	2	3	1	9.5
Separated/Rigid	0	0	2	0	2.4
Disengaged/Very Flexible	0	0	0	0	0
Disengaged/Flexible	0	1	0	0	1.2
Disengaged/Structured	0	0	1	1	2.4
Disengaged/Rigid	0	0	2	1	3.6

Family Subtypes in *italics* are the five most frequent in this sample upon which analysis was based.

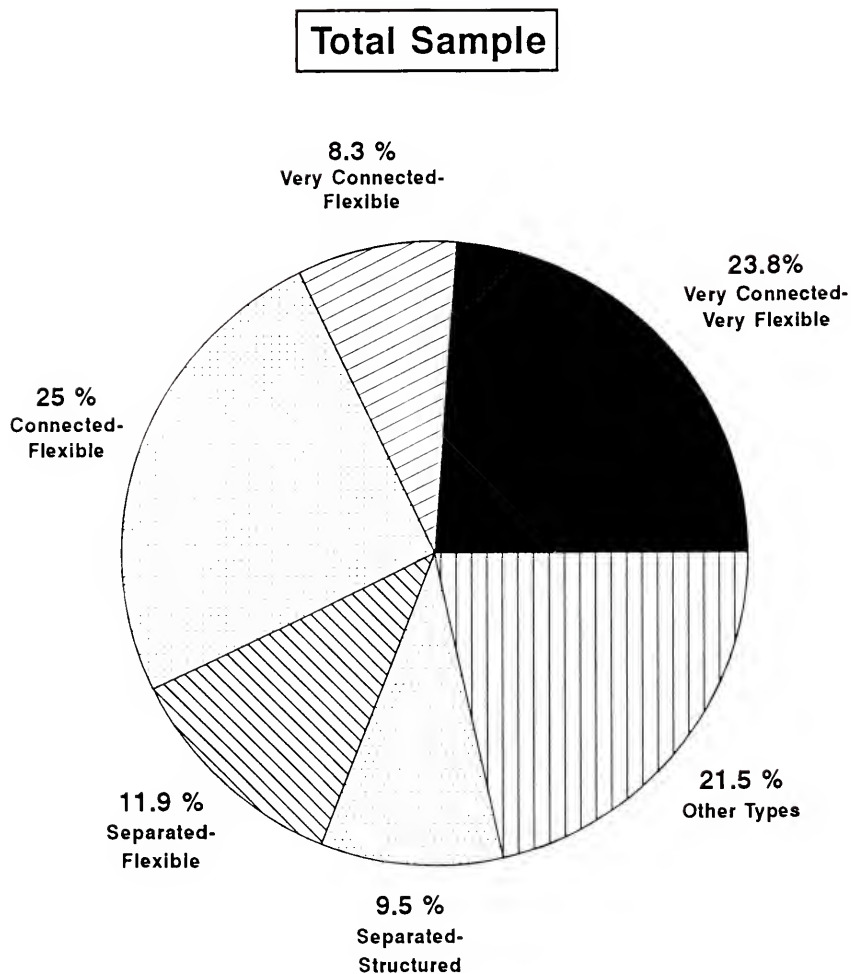


Figure 14. Family Subtypes for Total Sample

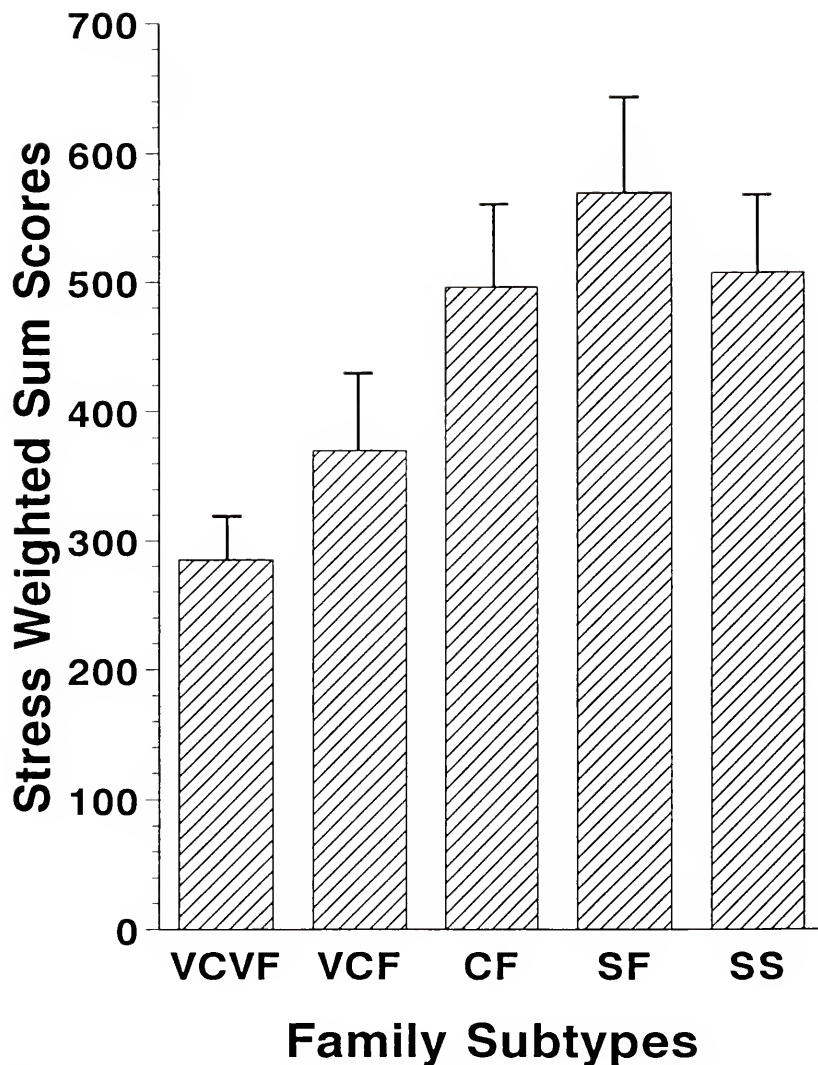


Figure 15. Stress Mean Scores for Family Subtypes

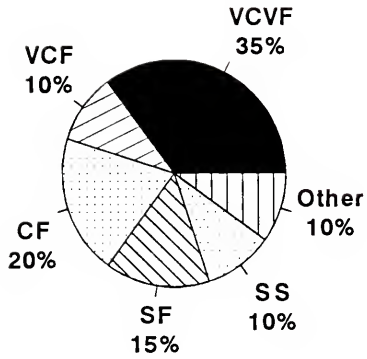
Note: VCVF=Very Connected/Very Flexible
VCF=Very Connected/Flexible
CF=Connected/Flexible
SF=Separated/Flexible
SS=Separated/Structured

determine the answer. Lewis (1989) theorized that families who have too much connectedness may not be able to respond to developmental challenges with appropriate increases in CF or CP styles, but that would certainly be refuted here with the Very Connected-Very Flexible families having the least amount of stress following a death.

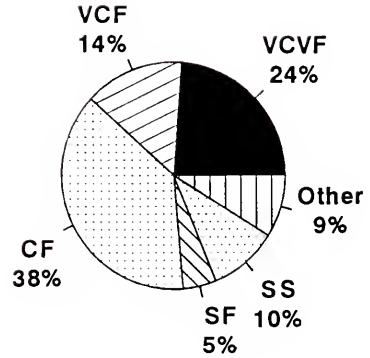
The cohesion-adaptability subtypes were charted according to quadrant (Figure 16). As families oscillate between CP and CF stages, some interesting changes in their cohesion and adaptability are apparent. The percentages of families that were Very Connected-Very Flexible is 35% at CP, decreasing to 24% at CP→CF, to 9% at CF, and then back up to 30% at CF→CP stages.

Taking the analysis one step further in accordance with Olson's Linear Scoring and Interpretation guidelines and his family typology model, 25% of the sample were Balanced families, 42% were Moderately Balanced, Midrange families constituted 27%, and 6% were Extreme. Marked differences between these family types by quadrant are also interesting in terms of the stress measures (Table 22). The greatest number of Balanced families are in the CP quadrant (40%) and the least (9%) are in the CF quadrant. Nearly two-thirds (62%) of the CP→CF quadrant are Moderately Balanced, with fairly equal distributions (30-39%) in the other three quadrants. Midrange families were fairly similar across quadrants, with the least in the CP→CF quadrant. There were no Extreme families in the CP→CF quadrant nor in the CP quadrant. The quadrant with the greatest stress had the highest percentage of families falling into the Balanced and Moderately Balanced categories (86%). The other three quadrants ranged from 48% to 70% for those two categories.

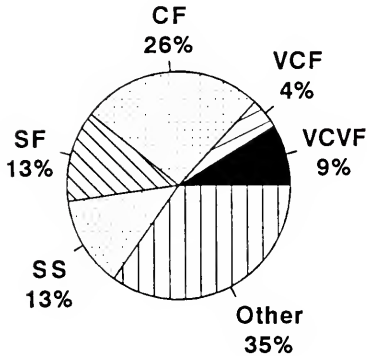
That the CP→CF quadrant had the greatest stress but also the greatest number of balanced and moderately balanced families can be interpreted in two ways. One, it provides even more evidence of the stressfulness of losing a loved one at a time when families are pulled so strongly in two different directions, as they are in the CP→CF



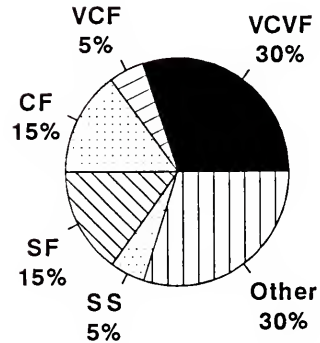
CP



CP → CF



CF



CF → CP

Figure 16. Family Subtypes by Quadrant

Note: VCVF=Very Connected/Very Flexible
 VCF=Very Connected/Flexible
 CF=Connected/Flexible
 SF=Separated/Flexible
 SS=Separated/Structured

Table 22

Family Types by Quadrant

	Extreme	Midrange	Moderately Balanced	Balanced
CP	0	30%	30%	40%
CP→CF	0	14%	62%	24%
CF	13%	39%	39%	9%
CF→CP	10%	25%	35%	30%

quadrant, particularly during the "settling down" stage. Despite the fact that these families were well-balanced, cohesive and adaptable, and relied on external familial and social support in a manner similar to families at other stages, losses at those stages are associated with more stress than any other.

The other possible interpretation is to suggest that these data support the validity of Olson's theory about the curvilinear relationship between the cohesion and adaptability scales for problem families. Although the concepts appear to be linear measures for normal families, there is evidence that clinical families fall on both extremes of the two dimensions (Olson, 1991). Is it possible that "normal" families become "clinical" families when there is an inappropriate amount of connectedness and flexibility for the developmental tasks appropriate to their stage of the life cycle? Is it possible that "Balanced" families, with high cohesion and high adaptability, are really more similar to "Extreme" families? Perhaps high cohesion and flexibility produce more unhealthy than healthy consequences at particular phases of the life cycle/spiral so that the terms used in the original Circumplex Model are more descriptive--"enmeshed" and "chaotic." In summary, the fact that CP→CF families

had higher stress than others may be more adequately explained as due to too much connectedness and flexibility which generate family enmeshment and chaos.

Relationship Between Social Support and Stress

A most surprising outcome of this research study was the lack of relationship between the use of social support and the amount of stress families experienced. Social support is repeatedly documented as being a critical factor for bereaved families and individuals in adapting to their loss (Walsh & McGoldrick, 1991). However, in three separate regression models incorporating use of social support as predictor of stress levels, no significant results were found. Two measures of social support were used, the Social Support Index, which assesses the reliance upon community (six questions), nuclear family (six questions), and friends (five questions), and the Relative and Friend Support Subscale (four questions each for relatives outside the nuclear family and friends). One interpretation is that social support is important and was utilized equally at all stages of the life cycle, although there were no statistically significant differences.

Had the study compared bereaved families served by Hospice to bereaved families who did not use those or other home care services, it is possible that differences in social support may have been noted? Hospice is a source of community support where family members are encouraged to be involved in the patient's care as well. A comparison of the means and standard deviations between this research sample and the normative sample for the social support instrument, FIRA-G, corroborates this hypothesis. The mean in this research sample varied from 60.8 to 63.3 across quadrants, with a variation in standard deviation between 4.0 and 4.9. For the normative sample the mean was considerably lower and the standard deviation higher (mean = 45.3 to 47.9 across stages of the family life cycle; standard deviation = 7.5 to 8.1) (McCubbin & Thompson, 1991). This indicates there was a range restriction in this sample, in that all participants had high levels of social support. Whether that is due to death generating more support than normal events would

for these families, or whether that is due to Hospice involvement as an agent of social support, or whether this particular sample simply consisted of people who were more apt to use social support is unknown. There were no meaningful differences in the means and standard deviations for the Relative and Friend Support subscale between this research sample and the normative sample.

The lack of social support's relevance to the model is perhaps offset by the significance of family cohesion, as documented repeatedly in these research results, and the benefits of each family's connection to Hospice. It is less likely that disengaged families would choose to, or be able to, care for a terminally ill member at home. When family involvement is emphasized, cohesion within the nuclear family may be increased by reliance on internal sources of support, so that reliance on social support from external sources is reduced. These results run counter to those of Cohen et al. (1977) who suggested that families who utilized family support also utilized social support. However, the findings of Weber and Fournier (1985) that families found more benefit from the support offered by immediate family members than various other institutional resources were confirmed.

Summary of Predictor Variables for Stress

Although quadrants of the Family Life Spiral Model did not have a direct relationship with stress levels, there was found to be an indirect relationship when cohesion was controlled. An interaction between quadrants and communication was found for predicting stress, with stress increasing across quadrants as communication discrepancy scores increased. The CF→CP families had the lowest stress and the lowest communication discrepancy scores, with both measures increasing for CP families, again for CP→CF families, and then continuing to the highest communication discrepancy scores for CF families but slightly slower stress levels.

Cohesion was predictive of a family's stress both for the mean scores as well as discrepancy scores. The lower cohesion, the higher the stress; the lower the cohesion discrepancy scores, the lower the stress. Results of analyses including adaptability indicated that despite being flexible and adaptable after the death of a loved one, there was no significant alteration in family stress levels. However, when the cohesion and adaptability scales were combined together, it became apparent that the less cohesive and adaptable families were, the more stress they incurred. Social support was not found to be a significant predictor of a family's stress postdeath.

Relationship Between Cohesion and Communication

Because of literature that connected a family's communication processes with their cohesion (Fleming & Adolph, 1986), analyses were conducted to determine the relationship between those variables. Cohesion mean scores did not predict a family's expressive communication levels, but the cohesion discrepancy scores were predictive of communication discrepancy scores. If families differed significantly on their views about cohesion, they could be expected to differ significantly about their communication patterns. Although the theories about the relationship between communication and cohesion were not corroborated here statistically (Fleming & Adolph, 1986; Ireys & Burr, 1984; Rosen, 1987; Sanders, 1989; Vess et al., 1985-1986), the occurrence of situations where families become disengaged with subsequent closed communication certainly occurs, albeit not in significantly high numbers.

Relationship Between Adaptability and Communication

Adaptability was a significant predictor of a family's expressive communication, both for mean scores as well as discrepancy scores. The more adaptable families were, the higher were their expressive communication scores. Two quadrants with high adaptability also had high expressive communication scores, and the quadrant with the lowest adaptability had the lowest communication score. No doubt it took greater openness in

communication in order to be more flexible. These results confirm the theories and findings of previous writers that families who communicate clearly and openly readjust and reallocate roles better than families who do not communicate as well and who are inflexible (Bowen, 1976; Cohen et al., 1977; Vess et al., 1985-1986; Vollman et al., 1971; Walsh, 1982; Walsh & McGoldrick, 1991). As with cohesion discrepancy, adaptability discrepancy scores were also predictive of communication discrepancy scores. When families had discrepant views of their adaptability, they also had discrepant views of their communication.

Family Life Spiral Model

The theory behind the Family Life Spiral Model served as the basis for this research study, and specifically the centripetal and centrifugal forces at work within the model. No empirical research had been done to test hypotheses about the effects of death on families depending upon whether they were at CP, CP→CF, CF, or CF→CP phases in the model. The model was divided into quadrants in order to group all the families at CP stages together, all the CP→CF stages together, and so on. The artificial boundaries devised in order to measure the differences between various phases of the family life spiral did not allow for the effects of variations in career development, marital development, status of aging parents and grandparents, and the previous history of the family in progressing through the stages of development.

Because of parameter definitions for each stage of the life cycle, there was much less difficulty placing families in a particular quadrant than was anticipated. When children were in the home, or grandchildren were under the age of 5, the categorization was simplified. Whether those delimiters accurately captured families operating predominantly under CP forces or CF forces is unknown, but the assumption was made that developmental tasks appropriate to the ages of the child(ren) were being negotiated.

In grouping families at disparate life cycle stages together into a single quadrant or phase of the life spiral model, no significant difference among quadrants was found on the amount of stress or social support in this study. There was an interaction between communication discrepancy scores and quadrants for predicting family stress, however, and the type of stress for one subscale did differ by quadrant. Cohesion and adaptability were both significantly different among quadrants as the literature suggested.

Although the amount of stress was not significantly different among quadrants, an examination of the means for each quadrant in light of the theories put forth in the literature allows us to see trends and tendencies that may be helpful in designing future studies. No one of the theories proposed by these researchers was wholly confirmed. Combrinck-Graham (1983) initially hypothesized that death would be less upsetting for families who were CF since death is a departure and that loss of a loved one at any other phase of the life spiral could cause the family to tighten their external boundaries even more. The data do not support that prediction. The quadrant with the greatest stress was CP→CF, and that showing the second greatest stress was the CF quadrant.

Rolland (1987a) had hypothesized that death at CF phases would be more stressful than at CP phases, which was true, but the greatest stress occurred not at CF but at the transitional CP→CF phase. He theorized that giving up the pursuit of a new life structure is more difficult once that process has been initiated than if the plans for such have not been made or are only in the preliminary stages. That did not seem to be the case here. Presumably, plans for new family and life structures were in the preliminary planning stages at the CP→CF phase and implemented in the CF phase.

The assumptions made in the literature about transition stages were not wholly supported (Golan, 1978; Haley, 1973; Hoffman, 1988; Ireys & Burr, 1984; McCubbin & Patterson, 1983; Rapaport, 1962; Rolland, 1990; Stanton, 1978; Walsh & McGoldrick, 1987), in that the phase with the greatest stress was the transitional CP→CF phase, and the

phase with the least amount of stress was the other transitional phase, CF→CP. The CP→CF transitional phase of the family life spiral was a much more difficult time to experience the death of a loved one than the CF→CP phase.

When differentiating between the stages of the family life cycle and phases of the family life spiral, analysis was very revealing and pointed out a drawback in generalizing about the effects of CP and CF forces across generations, especially in terms of stress levels. The differences between stages of the family life cycle in the amount of stress experienced were statistically significant. The greatest difference between two stages of the family life cycle occurred within one quadrant of the family life spiral, the "settling down" and "planning for retirement" stages in the CP→CF quadrant. Combining the scores of those two stages together into a mean score for the quadrant reduces the stress actually reported by those in the "settling down" stage. The amount of stress was clearly higher for the first revolution through this phase than it was at the succeeding one, and it may be that the intensity of CP and CF forces lessens as families progress through the life cycle.

Whether or not the other variables of interest (cohesion, adaptability, communication, and social support) would have achieved statistical significance by life cycle stages is unknown but clearly is worth considering for future studies. For those variables that did achieve significance by quadrant, we can only suppose that at least one stage within that quadrant would be significant if the same research design was conducted using the distinct stages of the family life cycle rather than synthetic quadrants of the family life spiral.

Combining two or three disparate stages together into one quadrant and making broad statements about the mean for those stages combined as a quadrant has the same effect as describing a family only in terms of mean scores. This is the value of discrepancy scores. Just as it is important to not lose sight of the individual within the system, differences between individual stages within the overall family life cycle must also be

examined. Some generalizations about CP or CF forces within the model are obviously accurate, and others may be less so. Sometimes the means are the more useful descriptors, and other times discrepancy scores may give a more complete picture.

Recommendations

Implications for Therapy

The results of this study point out several factors to consider when working with families who are anticipating the death of a loved one and also helping them through the bereavement process. Identifying high-risk families is important so that services may be targeted appropriately. Assessing where families are in the family life cycle is important in view of the results of this study. The "settling down" stage of the family life cycle is one where a great deal of stress occurs after the death of a loved one.

Preventive interventions aimed at maintaining levels of cohesion and flexibility relevant to developmental stage prior to the death may offset some of the pile-up of stressors afterwards. Educating families about the effects of the illness and death upon their individual and family development would serve to normalize their experience and enable them to prevent some of the added stressors and strains that might be expected at their particular stage of the life cycle. Encouraging family members to continue their age- and stage-appropriate development while engaging in the caregiving of their loved one and while grieving their loss is vital to recovery. An appropriate goal would be to generate cohesion (CP) sufficient for mutual support throughout the grieving process without giving up outside interests and activities (CF).

Other interventions may focus on helping families to reestablish more developmentally appropriate boundaries, encouraging appropriate restructuring of the roles within the family in light of developmental levels and strengths, normalizing the grief process, and encouraging continued open communication and connectedness while still allowing for appropriate differentiation. The most frequent stressors for each individual

stage of the life cycle could be developed (rather than by quadrant as was done in this study) and used as a guide for work with families facing the death of a loved one.

Limitations of the Study

Dividing both the life cycle and the life spiral into segments helps to organize the data and allows the examination of differences between stages and phases, but concretizing the stages and phases has limitations in that there are many factors that determine a person's position in their own individual life cycle as well as within the family life cycle and family life spiral (Gurman, 1983; Lewis, 1989). Variations on the normal family life cycle are becoming more prevalent and, therefore, make such clear divisions much cloudier (Carter & McGoldrick, 1988; Combrinck-Graham, 1983, 1985). Families do not always fall cleanly into one stage. Although a major defining characteristic of this study is the determination of the stage of the family life cycle by the age of the oldest child in the family, that has not been empirically established, and it may very well be that the youngest child has more influence on the holding forces of the family (L. Combrinck-Graham, personal communication, November 13, 1992).

As always in measurement, the bias of the use of self-report assessment tools by themselves is called into question (Lewis, 1989; McCubbin & Thompson, 1991). Do the family's observations of their own behavior provide an accurate picture of their dynamics? Would an outsider making an observational assessment be any more accurate? Retrospective assessments, such as FILE, call for a reflection on events and changes over the past year. This reflection calls into question the accuracy of the individual's memory, the influence of social desirability, and the tendency of individuals to constantly rework and rewrite their memories of events to come up with a picture they can accept (Lewis, 1989). However, such assessments do offer the potential of capturing family dynamics across time which perhaps an independent observer would not be as likely to see (McCubbin & Thompson, 1991).

There is always the question of whether or not the instruments are able to depict accurately all the ramifications of the stressor event of death and how well they depict the enduring and temporal characteristics of the family. A qualitative study may have gotten at those other elements more accurately.

The representativeness of the sample is limited by the volunteer nature of participation in the study and the willingness of families to be assessed (Sanders, 1989). Families in bereavement may not be eager to open up the wounds that may have occurred at the time of the loss. Those who did not agree to participate in the study may be those whose stress levels have been extreme or the family conflict so great as to fragment the family unit. Families who have low levels of expressive communication may have been unwilling to participate. Those who did agree to participate may have had a desire to gloss over problems that existed in the family in order to protect the family image or to deny the effects of the death; others may have exaggerated their responses to dramatize the effects of the death.

Generalizability of the study may be enhanced in this research study by the nonclinical nature of the sample. Families referred to Hospice are referred because of a diagnosis of terminal illness, not because of mental health problems, so are not necessarily presenting with issues that would prompt treatment in traditional clinical mental health settings. In other words, these families may more accurately represent the "normal" family than would a sample taken from inpatient or outpatient mental health settings. However, as mentioned earlier, experiencing the death of a loved one can certainly cause or exacerbate many situations that would prompt "normal" families to become "clinical" families. The assumption is made that those who use Hospice services are representative of the population at large; however, there has been no systematic collection of data to corroborate that assumption. There are families who do decline to be admitted to Hospice. They are often those who are independent, reserved, or those who simply do not want outsiders,

those who are not ready to admit or accept that their loved one is dying, or those who already have some other type of home care agency in place.

These results cannot be generalized to other types of deaths, such as perinatal deaths, sudden deaths, accidental deaths, suicides, or homicides. The nature of a Hospice death, that is, admission to a Hospice program in anticipation of death due to a terminal illness, appears to be significantly differentiated from unexpected deaths in some aspects. In a study by Bass and Bowman (1990), greater bereavement strain was experienced by families who reported more negative caregiving consequences. A positive correlation existed between utilization of community resources after the death and caregiving strain. A later study by Bass, Bowman, and Noelker (1991) showed that the presence of professional helpers during the caregiving phase had a significantly positive influence on surviving caregivers' perceptions of the family's adjustment. Sudden unexpected deaths where extensive caregiving had not preceded the death could be expected to experience different types of reactions.

Generalizability of these results beyond nuclear families is also not appropriate. The nature of family stress is not the same as the effects on an individual, and, therefore, the results must be qualified by discussing the results in terms of the family life spiral, rather than the individual's stage of development.

One last limitation to this study is that of the potentially outdated norms for the instruments that were used. All of the instruments were developed and normed in the early 1980s, and it would seem to be appropriate for the developers to establish norms based on their various recommended scoring procedures so that clinical and research samples could more accurately be compared to normal samples.

Suggestions for Further Study

A future study that may more accurately determine significant differences between high-risk stages of the family life cycle would be the assessment of nuclear families with

children living at home where the death that occurred was the death of one of the adults' parents. The Beavers Systems Model assessments could then be used which would determine through self-report as well as through observational measures whether families were relating in CF or CP styles, their competence, health, conflict, cohesion, leadership, and expressiveness. The FILE could be used to assess stress. A longitudinal assessment of families that begins upon admission of the patient into the Hospice program and follows up at the 1-year anniversary of the patient's death may help to determine the nature of the changes and the stress these families experience as they approach the death and grieve the death. This would also increase the power of the study as covariates could be introduced.

A comparative study might be undertaken between non-Hospice and Hospice patients' families, again with only nuclear families with children at home as participants, and the deceased being the parent of one of the adults being assessed in the nuclear family. However, a longitudinal study containing a predeath assessment would be difficult to obtain in this type of study for the non-Hospice patients' families. If the non-Hospice sample only included deaths that were anticipated and not sudden unexpected occurrences, this would allow differences to be discovered between the two different types of death experiences to see if the results of Hospice-involvement offset any of the stressors experienced postdeath.

Including a measure of the family's perception of the stressor event, as well as their well-being, would also take the study one step further by determining if families at certain life cycle stages have greater resilience which offsets the stress associated with the death of a loved one. Inclusion of the differences in effects between stressors and strains on the family would also be important in light of Olson et al. (1989) and McCubbin's work (1991) that indicate families at certain stages of the family life cycle may be more vulnerable to ongoing strains rather than specific stressor events.

Chapter Summary

This chapter has provided a discussion of results and recommendations derived from a study of the impact of death on families depending upon their stage in the family life cycle and their location in the family life spiral. The variables that were statistically significant were discussed and trends were examined for strengthening of future studies. The implications of these results in terms of therapeutic involvement with families were also discussed.

APPENDIX A
LETTER TO FAMILIES

Dear Hospice family member:

In our continued effort to help family members adapt to the death of their loved one, a research study is being conducted on the stress experienced by families in these situations. This knowledge will enable us to better help families cope. As a Bereavement Counselor with Hospice and a doctoral candidate in Counselor Education at the University of Florida, I am inviting you to participate in this study.

Participation will require about 30 to 60 minutes to complete several questionnaires designed to measure sources of stress and support in the family. I will administer these questionnaires to you in person. The results will be strictly confidential and your identity will not be made known to anyone or appear in any writing.

The study requires at least two members of each family household participate. These family members must be related to the deceased by blood, marriage, or adoption, and must be 13 years of age or older. Single member households will unfortunately not be able to participate.

I will call you in the next several weeks to discuss questions you have concerning this study and to determine your willingness to participate. If you agree, I will then arrange a time to visit with you and administer the questionnaires.

Your participation in the study is of course **completely voluntary** and you may withdraw from the study at any time. Please be assured that no other use, beyond this project, will be made of the information you provide.

If you have any questions about this research study, you may contact me at Hospice at (904) 378-2121 between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday.

Sincerely,

Liz Harvey, M.Ed., Ed.S.
Hospice Bereavement Counselor

APPENDIX B

FAMILY MEMBER SELECTION PROTOCOL

In order to participate in the study, there must be at least two members of a family aged 13 or older living together in one household. Single-member households will not be included.

In order to determine which family members in a household will be assessed, preference will be given to family members in the following order as they are related to the deceased member, one from each category, repeating the sequence as necessary to obtain the family size of two or three:

- 1) Primary caregiver
- 2) Spouse
- 3) Child--from oldest to youngest
- 4) Parent
- 5) Sibling--from oldest to youngest

For each member, the following questions will be asked:

- 1) Are you related by blood, marriage, or adoption to the deceased?
- 2) Are you 13 years of age or older?

Answers must be yes to both (1) and (2) in order to participate in the study.

A minimum of two individuals from each family must agree to participate to be considered a family unit. All selected members must live in the same household.

APPENDIX C STAGE OF THE FAMILY LIFE CYCLE

This chart is for the selection of the stage of the life cycle that best fits each participating member of the family. When families with children living at home are being assessed, Combrinck-Graham's Family Life Spiral Stages will be used based on the age of the oldest child in the home. When the individual/couple being assessed has no children living at home, age of grandchildren (if present) or developmental tasks of the individual/couple will be used to determine stage of the family life cycle. The interviewer will circle the stage for each individual. Categorical descriptions for each of these stages follow.

Combrinck-Graham's Family Life Spiral Stages	Quadrant
Adolescence	CF
Marriage/Courtship	CF→CP
Childbearing	CP
Settling Down	CP→CF
40s Reevaluation	CF
Middle Adulthood	CF→CP
Grandparenthood	CP
Plan for Retirement	CP→CF
Retirement	CF
Late Adulthood	CF→CP
Late Late Adulthood	CP

Family Life Spiral Stages

Adolescence (CF)

Individuals at this stage are seen as achieving a satisfying and socially accepted gender role and developing more mature relationships with age-mates. Getting an education and achieving emotional independence from parents are primary concerns.

Marriage/Courtship (CF→CP)

Couples in this stage are concerned with formulating and negotiating individual and couple goals and mutually acceptable lifestyles. Needs and demands of young children have not been encountered.

Childbearing (CP)

Families in this stage are similar in that the children spend most of their waking hours in the home and the family is oriented toward their growth and nurturance. Parents are primary sources of information and control, and the family is seen as child centered. Children are between 0 and 5 years of age.

Settling Down (CP→CF)

Families at this stage are focused on the education and socialization of children. The oldest child in a family at this stage is between 6 and 12 years of age.

40s Reevaluation (CF)

Families in this stage are concerned with preparing their teenagers to be launched from the home. Considerable demands are placed on the family due to the challenges of dealing with adolescents in the home.

Middle Adulthood (CF→CP)

During this stage, adolescents are beginning to leave home to establish identities and roles outside the family unit. Parental roles and rules are changing, and the family is occupied with successfully launching its children.

Grandparenthood (CP)

Families at this stage are defined by the absence of children in the home. Parents still hold some former roles, but the family is largely oriented toward couple needs and establishing more differentiated relationships with children and grandchildren.

Family Planning for Retirement (CP→CF)

Families at this stage are reassessing career goals and beginning to wind down. Establishing financial security and planning for redirection of energies are guiding forces.

Family in Retirement (CF)

Families in this stage have largely completed the raising and supervising of children. They have completed major career contributions and are occupied with couple maintenance as well as relationships with extended family and friends. They are adjusting to loss of job and potentially decreased income.

Family in Late Adulthood (CF→CP)

Families in this stage are beginning a life review and integration process. They are keeping mentally alert and effective as long as possible and are adapting their interests and activities to reserves of vitality and energy of the aging body. They commonly are facing loss of spouse, siblings and other peers and are withdrawing from their social network.

Family in Late Late Adulthood (CP)

Families in this stage have lived past their life expectancy and may have great-grandchildren. Their physical reserves are waning as they begin to face the inevitability of their own death.

APPENDIX D
FAMILY INVENTORY OF LIFE EVENTS AND CHANGES (FILE)



FAMILY STRESS COPING AND HEALTH PROJECT
1300 Linden Drive
University of Wisconsin-Madison
Madison, WI 53706

Family Health Program
FORM C
1983
C. H. McCubbin

IID	☐	☐	☐	☐
GID	☐	☐	☐	☐
FID	☐	☐	☐	☐

FILE

Family Inventory of Life Events and Changes

Hamilton I. McCubbin

Joan M. Patterson

Lance R. Wilson

PURPOSE

Over their life cycle, all families experience many changes as a result of normal growth and development of members and due to external circumstances. The following list of family life changes can happen in a family at any time. Because family members are connected to each other in some way, a life change for any one member affects all the other persons in the family to some degree.

"FAMILY" means a group of two or more persons living together who are related by blood, marriage or adoption. This includes persons who live with you *and* to whom you have a long term commitment.

DIRECTIONS

"DID THE CHANGE HAPPEN IN YOUR FAMILY?"

Please read each family life change and decide whether it happened to any member of your family—including you.

a DURING THE LAST YEAR

First, decide if it happened any time during the last 12 months and check YES or NO.

During Last 12 Months
Yes No
☐ ☐

FAMILY LIFE CHANGES	DID THE CHANGE HAPPEN IN YOUR FAMILY?			FAMILY LIFE CHANGES	DID THE CHANGE HAPPEN IN YOUR FAMILY?				
	During Last 12 Months	Yes	No		Score	During Last 12 Months	Yes	No	Score
I. INTRA-FAMILY STRAINS				12. Increased difficulty in managing infant(s) (0-1 yr)				35	☐ ☐
1. Increase of husband/father's time away from family	46	☐	☐	13. Increase in the amount of "outside activities" which the child(ren) are involved in	25	☐ ☐			
2. Increase of wife/mother's time away from family	51	☐ ☐		14. Increased disagreement about a member's friends or activities	35	☐ ☐			
3. A member appears to have emotional problems	58	☐ ☐		15. Increase in the number of problems or issues which don't get resolved	45	☐ ☐			
4. A member appears to depend on alcohol or drugs	66	☐ ☐		16. Increase in the number of tasks or chores which don't get done	35	☐ ☐			
5. Increase in conflict between husband and wife	53	☐ ☐		17. Increased conflict with in-laws or relatives	40	☐ ☐			
6. Increase in arguments between parent(s) and child(ren)	45	☐ ☐		II. MARITAL STRAINS					
7. Increase in conflict among children in the family	48	☐ ☐		18. Spouse/parent was separated or divorced	79	☐ ☐			
8. Increased difficulty in managing teenage child(ren)	55	☐ ☐		19. Spouse/parent has an "affair"	68	☐ ☐			
9. Increased difficulty in managing school age child(ren) (6-12 yrs.)	59	☐ ☐		20. Increased difficulty in resolving issues with a "former" or separated spouse	47	☐ ☐			
10. Increased difficulty in managing preschool age child(ren) (2-5 yrs.)	36	☐ ☐		21. Increased difficulty with sexual relationship between husband and wife	58	☐ ☐			
11. Increased difficulty in managing toddler(s) (1 1/2-2 yrs.)	36	☐ ☐							

Subtotal 1 _____

Please turn over and complete •

Subtotal 2 _____

FAMILY LIFE CHANGES	DID THE CHANGE HAPPEN IN YOUR FAMILY?			FAMILY LIFE CHANGES	DID THE CHANGE HAPPEN IN YOUR FAMILY?			
	During Last 12 Months	Yes	No		Score	During Last 12 Months	Yes	No
III. PREGNANCY AND CHILDBEARING STRAINS				VI. ILLNESS AND FAMILY "CARE" STRAINS				
22. Spouse had unwanted or difficult pregnancy	45	☐	☐		48. Parents/spouse became seriously ill or injured	44	☐	☐
23. An unmarried member became pregnant	65	☐	☐		49. Child became seriously ill or injured	35	☐	☐
24. A member had an abortion	50	☐	☐		50. Close relative or friend of the family became seriously ill	44	☐	☐
25. A member gave birth to or adopted a child	50	☐	☐		51. A member became physically disabled or chronically ill	72	☐	☐
IV. FINANCE AND BUSINESS STRAINS				VII. LOSSES				
26. Took out a loan or refinanced a loan to cover increased expenses	29	☐	☐		52. Increased difficulty in managing a chronically ill or disabled member	58	☐	☐
27. Went on welfare	55	☐	☐		53. Member or close relative was committed to an institution or nursing home	44	☐	☐
28. Change in conditions economic, political, weather which hurts the family business	41	☐	☐		54. Increased responsibility to provide direct care or financial help to husband's and/or wife's parent(s)	51	☐	☐
29. Change in Agriculture Market, Stock Market or Land Values which hurts family investments and/or income	43	☐	☐		55. Experienced difficulty in arranging for satisfactory child care	40	☐	☐
30. A member started a new business	50	☐	☐		VIII. TRANSITIONS "IN AND OUT"			
31. Purchased or built a home	41	☐	☐		56. A parents/spouse died	98	☐	☐
32. A member purchased a car or other major item	19	☐	☐		57. A child member died	99	☐	☐
33. Increasing financial debts due to over-use of credit cards	31	☐	☐		58. Death of husband's or wife's parent or close relative	48	☐	☐
34. Increased strain on family money for medical/dental expenses	23	☐	☐		59. Close friend of the family died	47	☐	☐
35. Increased strain on family money for food, clothing, energy, home care	21	☐	☐		60. Married son or daughter was separated or divorced	58	☐	☐
36. Increased strain on family money for children's education	22	☐	☐		61. A member "broke up" a relationship with a close friend	35	☐	☐
37. Delay in receiving child support or alimony payments	41	☐	☐		IX. FAMILY LEGAL VIOLATIONS			
V. WORK-FAMILY TRANSITIONS AND STRAINS				X. FAMILY LEGAL VIOLATIONS				
38. A member changed to a new job/career	40	☐	☐		62. A member was married	42	☐	☐
39. A member lost or quit a job	55	☐	☐		63. Young adult member left home	43	☐	☐
40. A member retired from work	48	☐	☐		64. A young adult member began college (or post high school training)	28	☐	☐
41. A member started or returned to work	41	☐	☐		65. A member moved back home or a new person moved into the household	42	☐	☐
42. A member stopped working for extended period (e.g., laid off, leave of absence, strike)	41	☐	☐		66. A parents/spouse started school for training programs after being away from school for a long time	38	☐	☐
43. Decrease in satisfaction with job/career	45	☐	☐		XI. FAMILY LEGAL VIOLATIONS			
44. A member had increased difficulty with people at work	32	☐	☐		67. A member went to jail or juvenile detention	68	☐	☐
45. A member was promoted at work or given more responsibilities	40	☐	☐		68. A member was picked up by police or arrested	57	☐	☐
46. Family moved to a new home/apartment	43	☐	☐		69. Physical or sexual abuse or violence in the home	75	☐	☐
47. A child/adolescent member changed to a new school	24	☐	☐		70. A member ran away from home	61	☐	☐
					71. A member dropped out of school or was suspended from school	38	☐	☐
Subtotal 3 _____				Subtotal 4 _____				
				Grand Total _____				
				(112+3+4)				

APPENDIX E
FAMILY ENVIRONMENT SCALE (FES)

FAMILY ENVIRONMENT SCALE
EXPRESSIVENESS SUBSCALE

DIRECTIONS: There are 9 statements below. They are statements about families. You are to decide which of these statements are true of your family and which are false. If you think the statement is **True** of your family or mostly **True**, circle the T next to the statement. If you think the statement is **False** or mostly **False** of your family, circle the F next to the statement.

You may feel that some of the statements are true for some family members and false for others. Circle T if the statement is true for most members. Circle F if the statement is false for most members. If the members are evenly divided, decide what is the stronger overall impression and answer accordingly.

Remember, we would like to know what your family seems like to you. So do not try to figure out how other members see your family, but do give us your general impression of your family for each statement.

- | | | | |
|---|---|----|---|
| T | F | 1. | Family members often keep their feelings to themselves. |
| T | F | 2. | We say anything we want to around home. |
| T | F | 3. | It's hard to "blow off steam" at home without upsetting somebody. |
| T | F | 4. | We tell each other about our personal problems. |
| T | F | 5. | If we feel like doing something on the spur of the moment we often just pick up and go. |
| T | F | 6. | Someone usually gets upset if you complain in our family. |
| T | F | 7. | Money and paying bills is openly talked about in our family. |
| T | F | 8. | We are usually careful about what we say to each other. |
| T | F | 9. | There are a lot of spontaneous discussions in our family. |

APPENDIX F
FAMILY INDEX OF REGENERATIVITY AND ADAPTATION--GENERAL (FIRA-G)

SOCIAL SUPPORT INDEX SUBSCALE

DIRECTIONS: Please decide how much you agree with each of the following statements about your community and family. Decide whether you: (1) STRONGLY DISAGREE; (2) DISAGREE; (3) are NEUTRAL; (4) AGREE; or (5) STRONGLY AGREE with the statements listed below. Indicate to the left of the item the number that best describes how you think.

1--STRONGLY DISAGREE

2--DISAGREE

3--NEUTRAL

4--AGREE

5--STRONGLY AGREE

- ___ 1. If I had an emergency, even people I do not know in this community would be willing to help.
- ___ 2. I feel good about myself when I sacrifice and give time and energy to members of my family.
- ___ 3. The things I do for members of my family and they do for me make me feel part of this very important group.
- ___ 4. People here know they can get help from the community if they are in trouble.
- ___ 5. I have friends who let me know they value who I am and what I can do.
- ___ 6. People can depend on each other in this community.
- ___ 7. Members of my family seldom listen to my problems or concerns; I usually feel criticized.
- ___ 8. My friends in this community are a part of my everyday activities.
- ___ 9. There are times when family members do things that make other members unhappy.
- ___ 10. I need to be very careful how much I do for my friends because they take advantage of me.
- ___ 11. Living in this community gives me a secure feeling.
- ___ 12. The members of my family make an effort to show their love and affection for me.
- ___ 13. There is a feeling in this community that people should not get too friendly with each other.

- ___ 14. This is not a very good community to bring children up in.
- ___ 15. I feel secure that I am as important to my friends as they are to me.
- ___ 16. I have some very close friends outside the family who I know really care for me and love me.
- ___ 17. Member(s) of my family do not seem to understand me; I feel taken for granted.

RELATIVE AND FRIEND SUPPORT SUBSCALE

DIRECTIONS: Decide for your family whether you: (1) STRONGLY DISAGREE; (2) DISAGREE; (3) are NEUTRAL; (4) AGREE; or (5) STRONGLY AGREE with the statements listed below. Indicate to the left of the item the number that best describes how you think.

- 1--STRONGLY DISAGREE
- 2--DISAGREE
- 3--NEUTRAL
- 4--AGREE
- 5--STRONGLY AGREE

We cope with family problems by:

- ___ 1. Sharing our difficulties with relatives
- ___ 2. Seeking advice from relatives
- ___ 3. Doing things with relatives (get togethers)
- ___ 4. Seeking encouragement and support from friends
- ___ 5. Seeking information and advice from people faced with the same or similar problem
- ___ 6. Sharing concerns with close friends
- ___ 7. Sharing problems with neighbors
- ___ 8. Asking relatives how they feel about the problems we face

APPENDIX G
FAMILY ADAPTABILITY AND COHESION EVALUATION SCALES (FACES-II)

FACES-II

DIRECTIONS: Please decide how much each of these statements describe your family now. Decide whether it is (1) ALMOST NEVER, (2) ONCE IN A WHILE, (3) SOMETIMES, (4) FREQUENTLY, or (5) ALMOST ALWAYS true of your family. Indicate to the left of the item the appropriate number.

- 1--ALMOST NEVER
- 2--ONCE IN A WHILE
- 3--SOMETIMES
- 4--FREQUENTLY
- 5--ALMOST ALWAYS

- ___ 1. Family members are supportive of each other during difficult times.
- ___ 2. In our family, it is easy for everyone to express his/her opinion.
- ___ 3. It is easier to discuss problems with people outside the family than with other family members.
- ___ 4. Each family member has input in major family decisions.
- ___ 5. Our family gathers together in the same room.
- ___ 6. Children have a say in their discipline.
- ___ 7. Our family does things together.
- ___ 8. Family members discuss problems and feel good about the solutions.
- ___ 9. In our family, everyone goes his/her own way.
- ___ 10. We shift household responsibilities from person to person.
- ___ 11. Family members know each other's close friends.
- ___ 12. It is hard to know what the rules are in our family.
- ___ 13. Family members consult other family members on their decisions.
- ___ 14. Family members say what they want.
- ___ 15. We have difficulty thinking of things to do as a family.
- ___ 16. In solving problems, the children's suggestions are followed.
- ___ 17. Family members feel very close to each other.
- ___ 18. Discipline is fair in our family.

- ___ 19. Family members feel closer to people outside the family than to other family members.
- ___ 20. Our family tries new ways of dealing with problems.
- ___ 21. Family members go along with what the family decides to do.
- ___ 22. In our family everyone shares responsibilities.
- ___ 23. Family members like to spend their free time with each other.
- ___ 24. It is difficult to get a rule changed in our family.
- ___ 25. Family members avoid each other at home.
- ___ 26. When problems arise, we compromise.
- ___ 27. We approve of each other's friends.
- ___ 28. Family members are afraid to say what is on their minds.
- ___ 29. Family members pair up rather than do things as a total family.
- ___ 30. Family members share interests and hobbies with each other.

FACES-II (COUPLES)

DIRECTIONS: Please decide how much each of these statements describe your marriage now. Decide whether is it (1) ALMOST NEVER, (2) ONCE IN A WHILE, (3) SOMETIMES, (4) FREQUENTLY, or (5) ALMOST ALWAYS true of your marriage. Indicate to the left of the item the appropriate number.

- 1--ALMOST NEVER
 2--ONCE IN A WHILE
 3--SOMETIMES
 4--FREQUENTLY
 5--ALMOST ALWAYS

- ___ 1. We are supportive of each other during difficult times.
- ___ 2. In our relationship, it is easy for both of us to express our opinion.
- ___ 3. It is easier to discuss problems with people outside the marriage than with my partner.
- ___ 4. We each have input regarding major family decisions.
- ___ 5. We spend time together when we are home.
- ___ 6. We are flexible in how we handle differences.
- ___ 7. We do things together.
- ___ 8. We discuss problems and feel good about the solutions.
- ___ 9. In our marriage, we each go our own way.
- ___ 10. We shift household responsibilities between us.
- ___ 11. We know each other's close friends.
- ___ 12. It is hard to know what the rules are in our relationship.
- ___ 13. We consult each other on personal decisions.
- ___ 14. We freely say what we want.
- ___ 15. We have difficulty thinking of things to do together.
- ___ 16. We have a good balance of leadership in our family.
- ___ 17. We feel very close to each other.
- ___ 18. We operate on the principle of fairness in our marriage.
- ___ 19. I feel closer to people outside the marriage than to my partner.

- ___ 20. We try new ways of dealing with problems.
- ___ 21. I go along with what my partner decides to do.
- ___ 22. In our marriage, we share responsibilities.
- ___ 23. We like to spend our free time with each other.
- ___ 24. It is difficult to get a rule changed in our relationship.
- ___ 25. We avoid each other at home.
- ___ 26. When problems arise, we compromise.
- ___ 27. We approve of each other's friends.
- ___ 28. We are afraid to say what is on our minds.
- ___ 29. We tend to do more things separately.
- ___ 30. We share interests and hobbies with each other.

APPENDIX H DEMOGRAPHIC QUESTIONNAIRE

1. Age _____
2. Sex _____
3. Marital Status:
Single _____
Married _____
Separated _____
Divorced _____
Widowed _____
4. Ethnicity:
Caucasian _____
African American _____
Hispanic _____
Asian American _____
Other _____
5. County of Residence _____
6. Age of deceased family member at time of death _____
7. The member of my family who died was my husband, wife, mother, father, son, daughter, brother, sister, etc. _____
8. Were you the primary caregiver for the deceased?
Yes _____ No _____
9. Your approximate individual annual income:

_____ Under \$5,000	_____ \$30,000-\$39,999
_____ \$5,000-\$9,999	_____ \$40,000-\$49,999
_____ \$10,000-\$14,999	_____ \$50,000-\$59,999
_____ \$15,000-\$19,999	_____ \$60,000-\$69,999
_____ \$20,000-\$30,000	_____ \$70,000+
10. Please check the following services for appropriateness to your situation:

<u>Did Use</u>		<u>Would Have Used If Available</u>
_____	Individual Counseling	_____
_____	Marital Counseling	_____
_____	Family Counseling	_____
_____	Pastoral Counseling	_____
_____	Support Group	_____

APPENDIX I
LINEAR SCORING AND INTERPRETATION FOR FACES-II

FACES II: Linear Scoring & Interpretation

Cohesion		
8	80	Very Connected
	74	
7	73	
	71	
6	70	Connected
	65	
5	64	
	60	
4	59	Separated
	55	
3	54	
	51	
2	50	Disengaged
	35	
1	34	
	15	

Adaptability		
8	70	Very Flexible
	65	
7	64	
	55	
6	54	Flexible
	50	
5	49	
	46	
4	45	Structured
	43	
3	42	
	40	
2	39	Rigid
	30	
1	29	
	15	

Family Type	
8	Balanced
7	
6	Moderately Balanced
5	
4	Mid-Range
3	
2	Extreme
1	

APPENDIX J
LETTER OF INSTRUCTION TO FAMILIES PARTICIPATING BY MAIL

Dear

Thank you both so much for agreeing to participate in this research study and for allowing me to do it by mail with you. Just to make sure you are clear about how to fill out these questionnaires, let me give you the instructions that I usually give people when I am doing the assessments in person.

1. First sign the "Informed Consent" which simply gives me permission to use the data which you will provide.
2. When answering these questionnaires, I want you to think back over the last year of your life, since the date of the death of your loved one, and check which stressors you have experienced or sources of support you have used in that period of time.
3. Most importantly is that the definition of "family" throughout all the questionnaires is "those people who are living together with you in your household." This does not refer to other family members who live outside your home. Any questions about "family members" refers to those members living with you.
4. On page two of the first questionnaire FILE, in the right-hand column, there is a section "VII. LOSSES." [The following statement was modified for each letter depending upon the participants' relationships to the deceased patient. This example represents the patient's son and his wife.] Make sure you check the correct boxes there to represent the death of [loved one]. [Son's name] should check box #56 YES and [daughter-in-law's name] should check box #58 YES. If there have been other deaths in your family this past year, please note those also.
5. Many of the stressors on the FILE questionnaire will not apply to your family. Just check those items NO.
6. Do not worry about the "Score" column to the right of the "Yes/No" boxes on FILE. The person who does the tabulating will enter those scores.
7. FACES-II has questions on the back side of the page.
8. When you are through, please put both sets of questionnaires and both the informed consents in the return envelope and send them back to me.

If you should have any questions about how to answer any of the questionnaires, you may reach me at the Hospice office (1-800-727-1889) during the day or at home in the evening (904-373-5572) which you may call collect.

Sincerely,

Liz Harvey, M.Ed., Ed.S.

APPENDIX K
COMPOSITION OF PARTICIPANT FAMILIES

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
<u>CP</u>			
101 son	daughter-in-law		
102 daughter	son-in-law		
103			
104 son	daughter-in-law		
105 brother	sister-in-law		
106 wife	granddaughter	granddaughter	
107 son	daughter-in-law		
108 granddaughter	grandson-in-law		
109 daughter	son-in-law		
110 granddaughter	grandson-in-law		
111 daughter	mother-in-law		
112 NOT RETURNED			
113 daughter	son-in-law		
114 daughter	greatgranddaughter		
115 NOT RETURNED			
116 brother	sister-in-law		
117 sister	brother-in-law		
118 son	daughter-in-law		
119 daughter	son-in-law		
120 son	daughter-in-law		
121 daughter	son-in-law		
122 stepson	stepdaughter-in-law		
<u>CP→CF</u>			
201 wife	stepson		
202 daughter	son-in-law		
203 son	daughter-in-law		
204 daughter	son-in-law		
205 father	stepmother		
206 daughter	son-in-law		
207 daughter	son-in-law		
208 son	daughter-in-law		
209 son	grandson		
210 son	daughter-in-law		
211 son	daughter-in-law		
212 husband	daughter		

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
213 son	daughter-in-law			
214 wife	son			
215 son	daughter-in-law			
216 daughter	son-in-law			
217 son	daughter			
218 son	daughter-in-law			
219 daughter	son-in-law			
220 daughter	son-in-law			
221 son	daughter-in-law			
<u>CF</u>				
301 wife	daughter			
302 son	daughter-in-law	grandson		
303 son	daughter-in-law			
304 wife	son	daughter		
305 sister	brother-in-law	nephew		
306 wife	daughter			
307 daughter	son-in-law	grandson		
308 wife	grandson			
309 daughter	granddaughter			
310 grandson	greatgranddaughter			
311 stepdaughter	greatgranddaughter			
312 stepdaughter	greatgranddaughter			
313 daughter	granddaughter			
314 son	daughter-in-law	granddaughter	grandson	grandson
315 daughter	son-in-law			
316 daughter	granddaughter			
317 daughter	son-in-law			
318 daughter	grandson			
319 wife	son	daughter		
320 son	daughter-in-law			
321 mother	sister	brother		
322 wife	daughter			
323 daughter	grandson			
<u>CF→CP</u>				
401 granddaughter	grandson-in-law			
402 son	son			
403 daughter	grandson			
404 wife	daughter	daughter		
405 wife	son			
406 mother	sister			
407 brother	sister-in-law			
408 son	daughter-in-law			
409 grandmother	greatgrandmother			
410 daughter	son-in-law			
411 daughter	son-in-law			
412 brother	sister-in-law			
413 daughter	son-in-law			
414 daughter	son-in-law	grandson	grandson	

<u>A</u>	<u>B</u>
415 son	daughter-in-law
416 sister	niece
417 wife	grandson
418 brother	sister-in-law
419 wife	grandson
420 wife	daughter

CDE

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BIOGRAPHICAL SKETCH

Elizabeth Anne Harvey was born September 12, 1947, in Topeka, Kansas, the youngest of four siblings. She graduated from Kansas State University in August, 1968, with a Bachelor of Arts degree in French and education. Having married John Harvey June 1, 1968, she worked as a secretary and office manager for 6 years while John finished his veterinary degree at Kansas State University and Doctor of Philosophy degree from the University of California at Davis. A family was started with Ashley being born at the end of the Davis years and Thad arriving later after the family had moved to Gainesville, Florida.

Elizabeth worked out of the home typing theses and dissertations for the graduate school and was actively involved in volunteer work in the church, community, and public schools for the next 12 years. She returned to graduate school at the University of Florida in 1986 to pursue training in counseling. She received her Master of Education and Specialist in Education degrees in August, 1989, and began the doctoral program in September, 1989.

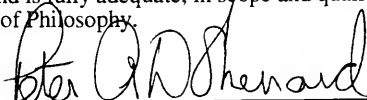
Seeds of inspiration for this work were sown over a long period of time. The death of her sister, Sharon, at the age of 28, in a plane crash was an overwhelming tragedy that initiated a search for understanding and meaning of the fragility of life. From that point on, life perspectives and values were changed, and empathy for other's pain and suffering was gained.

As Elizabeth approached midlife, her mother, age 67, was diagnosed with leukemia and died within 9 months. Eight months later her sister-in-law, Rothi, who had been like a

sister to her after Sharon's death, died at the age of 42 of breast cancer after a 10-year struggle. Two months later Sharon's son, Rock, age 17, was killed in an automobile accident, and 4 months later her grandfather died, the only one who lived to a ripe old age, 96. Within 3 years the family experienced yet another tragic loss with the death of Elizabeth's nephew, Todd, age 23, in an automobile accident. With nearly 30% of the immediate family members having died, and most far short of their life expectancy, the messages about the preciousness of life have profound meaning. Elizabeth has been acutely aware of the impact of death upon families as she has observed the many ramifications within her own family of origin.

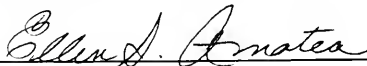
As a result of these life experiences, it is with deep respect for families facing the death of their loved ones that Elizabeth began working with Hospice of North Central Florida in 1991 as a bereavement counselor where she continues at the present time.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



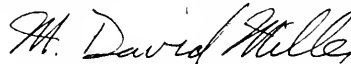
Peter A. D. Sherrard, Chair
Associate Professor of Counselor Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



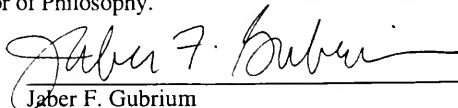
Ellen S. Amatea
Professor of Counselor Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



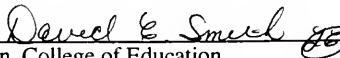
M. David Miller
Associate Professor of Foundations of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Jaber F. Gubrium
Professor of Sociology

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.



Dean, College of Education

April, 1994

Dean, Graduate School

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